October 24, 2019

Director, Air and Toxics Technical Enforcement Program,
Office of Enforcement, Compliance and Environmental Justice,
Mail Code 8ENF-AT,
1595 Wynkoop Street, Denver, CO 80202-1129

RE: OOOOa Annual Report
Liberty Resources

Dear Director:

Liberty Resources Management Company, LLC dba Liberty Resources (Liberty) is submitting a copy of the annual report submitted to the agency's Compliance and Emissions Data Reporting Interface (CEDRI). Enclosed are copies of completed spreadsheet templates and attachments.

Annual reports were submitted in compliance with § 60.5420a(b)(11) utilizing 60.4520a(b) Annual Report (Spreadsheet Template) posted on October 6, 2017 on the Implementation of Oil and Natural Gas Air Pollution Standards webpage.

Sincerely,

(b) (6) [redacted]

Tappan Souther

Production Engineering Manager

40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which
For each affected facility, an owner or operator must include the information specified in pa

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Field value will automatically generate if a value is not entered.)**	Company Name * (§60.5420a(b)(1)(i))	Facility Site Name * (§60.5420a(b)(1)(i))	US Well ID or US Well ID Associated with the Affected Facility, if applicable. * (§60.5420a(b)(1)(i))
	e.g.: ABC Company	e.g.: XYZ Compressor Station	e.g.: 12-345-67890-12
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04244-00-00
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04245-00-00
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04246-00-00
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04348-00-00
233292	LIBERTY RESOURCES MA	WALDON PAD	33-105-04357-00-00
233292	LIBERTY RESOURCES MA	WALDON PAD	33-105-04356-00-00
235623	LIBERTY RESOURCES MA	GARNES-GLIKO PAD	33-013-01881-00-00
235623	LIBERTY RESOURCES MA	GARNES-GLIKO PAD	33-013-01882-00-00
233944	LIBERTY RESOURCES MA	PATRICIA-ROBERTS PAI	33-013-01843-00-00
233944	LIBERTY RESOURCES MA	PATRICIA-ROBERTS PAI	33-013-01874-00-00
134769	LIBERTY RESOURCES MA	MARTIN C 158-93-11-2	33-061-04219-00-00
234930	LIBERTY RESOURCES MA	DOUBLE-R PAD	33-061-04232-00-00
234930	LIBERTY RESOURCES MA	DOUBLE-R PAD	33-061-04243-00-00
235096	LIBERTY RESOURCES MA	STANLEY W PAD	33-061-04247-00-00
235096	LIBERTY RESOURCES MA	STANLEY W PAD	33-061-04248-00-00
233497	LIBERTY RESOURCES MA	KAITLYN-HALEY PAD	33-061-04387-00-00

RECEIVED

OCT 29 2019

Enforcement and Compliance
Assurance Division

Construction, Modification or Reconstruction Commenced After September 18, 2015 - 60.5420a(b)
aragraphs (b)(1)(i) through (iv) of this section in all annual reports:

SITE INFORMATION

Address of Affected Facility * (§60.5420a(b)(1)(i))	Address 2	City *	County *	State Abbreviation *	Zip Code *
e.g.: 123 Main Street	e.g.: Suite 100	e.g.: Brooklyn	e.g.: Kings County	e.g.: NY	e.g.: 11221
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	WILLIAMS	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	WILLIAMS	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	BURKE	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	BURKE	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	BURKE	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	BURKE	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl
Not Applicable	Not Applicable	Not Applicable	MOUNTRAIL	ND	Not Applicabl

ALTERNATIVE ADDRESS INFORMATION (IF NO PHYSICAL ADDRESS AVAILABLE FOR SITE *)

Responsible Agency Facility ID (State Facility Identifier)	Description of Site Location (§60.5420a(b)(1)(i))	Latitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))	Longitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))
	e.g.: 7 miles NE of the intersection of Hwy 123 and Hwy 456	e.g.: 34.12345	e.g.: -101.12345
35088	LOT3 18 92 W 158 N	(b) (9)	(b) (9)
35089	LOT3 18 92 W 158 N		
35090	LOT3 18 92 W 158 N		
35709	LOT3 18 92 W 158 N		
33293	NENW 24 97 W 157 N		
33292	NENW 24 97 W 157 N		
35623	NENW 23 93 W 159 N		
35624	NENW 23 93 W 159 N		
33944	NENW 12 94 W 159 N		
35371	NENW 12 94 W 159 N		
34769	SWSE 11 93 W 158 N		
34930	NWNW 35 94 W 158 N		
35036	NWNW 35 94 W 158 N		
35096	LOT1 30 91 W 158 N		
35097	LOT1 30 91 W 158 N		
35886	NWNW 29 93 W 158 N		

REPORTING INFORMATION		PE Certification	ADDITIONA
Beginning Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Ending Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Please provide the file name that contains the certification signed by a qualified professional engineer for each closed vent system routing to a control device or process. * (§60.5420a(b)(12)) Please provide only one file per record.	Please enter any additional information.
e.g.: 01/01/2016	e.g.: 06/30/2016	e.g.: Certification.pdf **or** XYZCompressorStation.pdf	
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		
8/2/2018	8/1/2019		

AL INFORMATION

Enter associated file name reference.

e.g.: addlinfo.zip **or** XYZCompressorStation .pdf

40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which C
For each well affected facility, an owner or operator must include the information specified in

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Select from dropdown list -** *may need to scroll up* **)**	United States Well Number* (§60.5420a(b)(1)(ii))	Records of deviations where well completion operations with hydraulic fracturing were not performed in compliance with the requirements specified in § 60.5375a. * (§60.5420a(b)(2)(ii) and §60.5420a(c)(1)(ii))
	e.g.: 12-345-67890-12	e.g.: On October 12, 2016, a separator was not onsite for the first 3 hours of the flowback period.
235088	33-061-04244-00-00	None
235088	33-061-04245-00-00	None
235088	33-061-04246-00-00	None
235088	33-061-04348-00-00	None
233292	33-105-04357-00-00	None
233292	33-105-04356-00-00	None
235623	33-013-01881-00-00	None
235623	33-013-01882-00-00	None
233944	33-013-01843-00-00	None
233944	33-013-01874-00-00	None
134769	33-061-04219-00-00	None
234930	33-061-04232-00-00	None
234930	33-061-04243-00-00	None
235096	33-061-04247-00-00	None
235096	33-061-04248-00-00	None
233497	33-061-04387-00-00	None

onstruction, Modification or Reconstruction Commenced After September 18, 2015 - 60.5420a(b) Annual
paragraphs (b)(2)(i) through (iii) of this section in all annual reports:

§60.5432a Low Pressure Wells	All Well Completions	
Please provide the file name that contains the Record of Determination and Supporting Inputs and Calculations * (§60.5420a(b)(2)(iii) and §60.5420a(c)(1)(vii)) Please provide only one file per record.	Well Completion ID * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(i))	Well Location * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: lowpressure.pdf **or** XYZCompressorStation.pdf	e.g.: Completion ABC	e.g.: 34.12345 latitude, -101.12345 longitude
	35088-19	
	35089-19	
	35090-19	
	35709-19	
	33293-18	
	33292-18	
	35623-19	
	35624-19	
	33944-19	
	35371-19	
	34769-18	
	34930-18	
	35036-18	
	35096-18	
	35097-18	
	35886-19	

Report

Date of Onset of Flowback Following Hydraulic Fracturing or Refracturing * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Time of Onset of Flowback Following Hydraulic Fracturing or Refracturing * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Date of Each Attempt to Direct Flowback to a Separator * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Time of Each Attempt to Direct Flowback to a Separator * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: 10/16/16	e.g.: 10 a.m.	e.g.: 10/16/16	e.g.: 10 a.m.

Well Affected Facilities Required to Comply with §60.5375a(a) and §60.5

Date of Each Occurrence of Returning to the Initial Flowback Stage * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Time of Each Occurrence of Returning to the Initial Flowback Stage * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Date Well Shut In and Flowback Equipment Permanently Disconnected or the Startup of Production * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Time Well Shut In and Flowback Equipment Permanently Disconnected or the Startup of Production * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: 10/16/16	e.g.: 10 a.m.	e.g.: 10/16/16	e.g.: 10 a.m.

375a(f)

Duration of Flowback in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Duration of Recovery in Hours * *(Not Required for Wells Complying with §60.5375a(f))* (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A))	Disposition of Recovery * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: 5	e.g.: 5	e.g.: Used as onsite fuel

Duration of Combustion in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Duration of Venting in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Reason for Venting in lieu of Capture or Combustion * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: 5	e.g.: 5	e.g: No onsite storage or combustion unit was available at the time of completion.

Exceptions Under §60.5375a(a)(3) - Tech			
Well Location * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iv))	Specific Exception Claimed * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iv))	Starting Date for the Period the Well Operated Under the Exception * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iv))	Ending Date for the Period the Well Operated Under the Exception * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iv))
e.g.: 34.12345 latitude, -101.12345 longitude	e.g.: Technical infeasibility under 60.5375a(a)(3)	e.g.: 10/16/2016	e.g.: 10/18/2016

ınically Infeasible to Route to the Gas Flow Line or Collection System, Re-inject intc

Why the Well Meets the Claimed Exception * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iv))	Name of Nearest Gathering Line * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: As further described in this report, technical issues prevented the use of the gas for useful purposes.	e.g.: ABC Line

› a Well, Use as an Onsite Fuel Source, or Use for Another Useful Purpose Served By a Purchased

Location of Nearest Gathering Line * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Technical Considerations Preventing Routing to this Line * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Capture, Reinjection, and Reuse Technologies Considered * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: 100 miles away at 34.12345 latitude, -101.12345 longitude	e.g.: right of use	e.g.: on-site generators

Fuel or Raw Material		
Aspects of Gas or Equipment Preventing Use of Recovered Gas as a Fuel Onsite * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Technical Considerations Preventing Use of Recovered Gas for Other Useful Purpose * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))	Additional Reasons for Technical Infeasibility * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A)-(B))
e.g.: gas quality	e.g. gas quality	e.g. well damage or clean-up

			Well Affected Faciliti
Well Location* (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Date of Onset of Flowback Following Hydraulic Fracturing or Refracturing * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Time of Onset of Flowback Following Hydraulic Fracturing or Refracturing * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Date Well Shut In and Flowback Equipment Permanently Disconnected or the Startup of Production * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))
e.g.: 34.12345 latitude, -101.12345 longitude	e.g.: 10/16/16	e.g.: 10 a.m.	e.g.: 10/16/16

es Meeting the Criteria of §60.5375a(a)(1)(iii)(A) - Not Hydraulically Fractured/Refractured with Liquids or I

Time Well Shut In and Flowback Equipment Permanently Disconnected or the Startup of Production * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Duration of Flowback in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Duration of Combustion in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Duration of Venting in Hours * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))
e.g.: 10 a.m.	e.g.: 5	e.g.: 5	e.g.: 5

Do Not Generate Condensate, Intermediate Hydrocarbon Liquids, or Produced Water (No Liquic

Reason for Venting in lieu of Capture or Combustion * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(A) and (C))	Does well still meet the conditions of §60.5375a(1)(iii)(A)? * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*2*))	If applicable Date Well Completion Operation Stopped * ((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*2*))
e.g: No onsite storage or combustion unit was available at the time of completion.	e.g.: Yes	e.g.: 10/16/16

1 Collection System or Seperator Onsite)

If applicable: Time Well Completion Operation Stopped * ((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*2*))	If applicable: Date Separator Installed * ((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*2*))	If applicable: Time Separator Installed * ((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*2*))
e.g.: 10 a.m.	e.g.: 10/16/16	e.g.: 10 a.m.

	Well Affected Facilities Required to Comply with Both §60.5375a(a)(1) and (3) Using a Digital Photo in lieu of Records Required by §60.5420a(c)(1)(i) through (iv)
Are there liquids collection at the well site? Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. * ((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(iii)(C)(*3*))	Please provide the file name that contains the Digital Photograph with Date Taken and Latitude and Longitude Imbedded (or with Visible GPS), Showing Required Equipment (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(v)) Please provide only one file per record.
e.g.: No	e.g.: completion1.pdf **or** XYZCompressorStation.pdf
	AZ 158-93-13-24-4MBH & UT 158-93-12-1-4MBH & NM 1
	AZ 158-93-13-24-4MBH & UT 158-93-12-1-4MBH & NM 1
	AZ 158-93-13-24-4MBH & UT 158-93-12-1-4MBH & NM 1
	AZ 158-93-13-24-4MBH & UT 158-93-12-1-4MBH & NM 1
	Waldon W 157-97-24-25-3MBH & Waldon W 157-97-24-2
	Waldon W 157-97-24-25-3MBH & Waldon W 157-97-24-2
	GARNES 159-93-14-2-1MBHX & GLIKO 159-93-23-35-1ME
	GARNES 159-93-14-2-1MBHX & GLIKO 159-93-23-35-1ME
	ROBERT W 159-94-1-25-2TFHX & PATRICIA W 159-94-12-
	ROBERT W 159-94-1-25-2TFHX & PATRICIA W 159-94-12-
	Martin C 158-93-11-2-3MBH GPS.pdf
	Double-R N 158-94-34-33-1MBH & Double-R N 158-94-34
	Double-R N 158-94-34-33-1MBH & Double-R N 158-94-34
	Stanley W 158-91-30-6-1MBHX & Stanley W 158-91-30-6-
	Stanley W 158-91-30-6-1MBHX & Stanley W 158-91-30-6-
	HALEY 158-93-29-32-1TFH & HALEY 158-93-29-32-10MBH

Well Affected Facilities Meeting the Criteria of §60.5375a(g) - <	
Well Location* (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(vi)(B))	Please provide the file name that contains the Record of Analysis Performed to Claim Well Meets §60.5375a(g), Including GOR Values for Established Leases and Data from Wells in the Same Basin and Field * (§60.5420a(b)(2)(i) and §60.5420a(c)(1)(vi)(A)) Please provide only one file per record.
e.g.: 34.12345 latitude, -101.12345 longitude	e.g.: GORcalcs.pdf **or** XYZCompressorStation.pdf
(b) (9)	158-92-7-6-2TFH GPS.pdf 158-92-7-6-2TFH GPS.pdf 158-92-7-6-2TFH GPS.pdf 158-92-7-6-2TFH GPS.pdf
	-4TFH & Morgen 158-93-20-17-2TFH & P

300 scf of Gas per Stock Tank Barrel of Oil Produced

Does the well meet the requriements of §60.5375a(g)?
Based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *
((§60.5420a(b)(2)(i) and §60.5420a(c)(1)(vi)(C))

e.g.: Yes

ıige 158-93-19-18-3MBH GPS.pdf


IMG_1827.JPG


IMG_1828.JPG


IMG_1829.JPG


IMG_1830.JPG


IMG_1831.JPG


IMG_1832.JPG

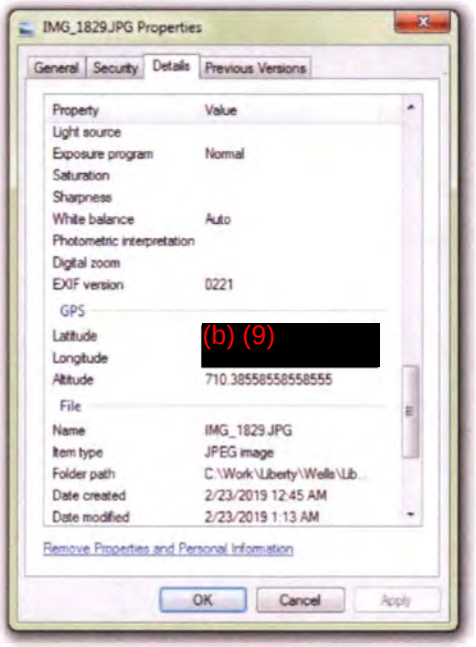

IMG_1833.JPG


IMG_1834.JPG


IMG_1835.JPG


IMG_1836.JPG


IMG_1837.JPG



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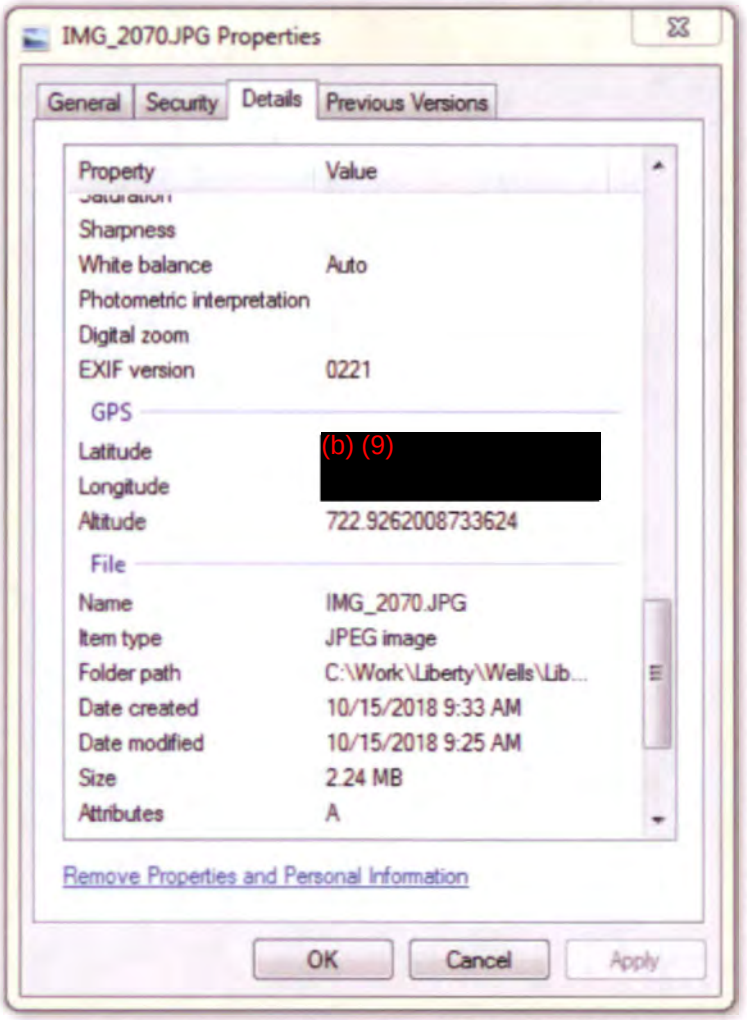
IMG_2068.JPG

IMG_2070.JPG



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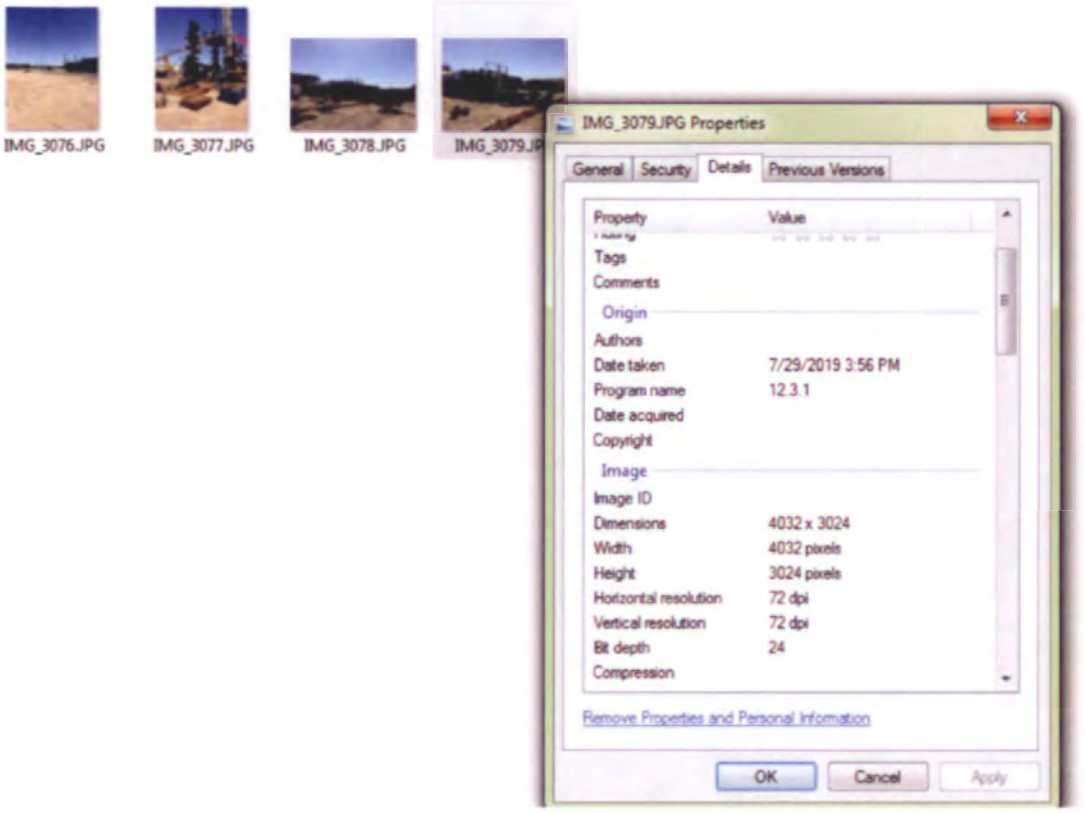
IMG_2367.JPG

IMG_2368.JPG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IMG_3079.JP
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General
Security
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Value
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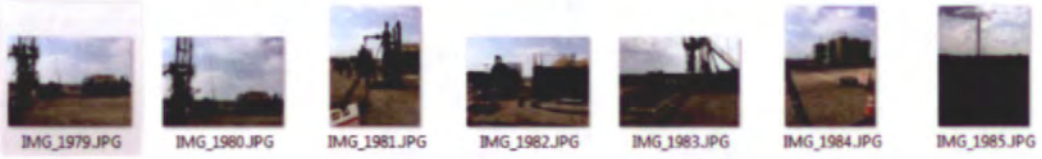
Comments
Origin
Authors
Date taken
7/29/2019 3:56 PM
Program name
12.3.1
Date acquired
Copyright
Image
Image ID
Dimensions
4032 x 3024
Width
4032 pixels
Height
3024 pixels
Horizontal resolution
72 dpi
Vertical resolution
72 dpi
Bit depth
24
Compression
Remove Properties and Personal Information
OK
Cancel
Apply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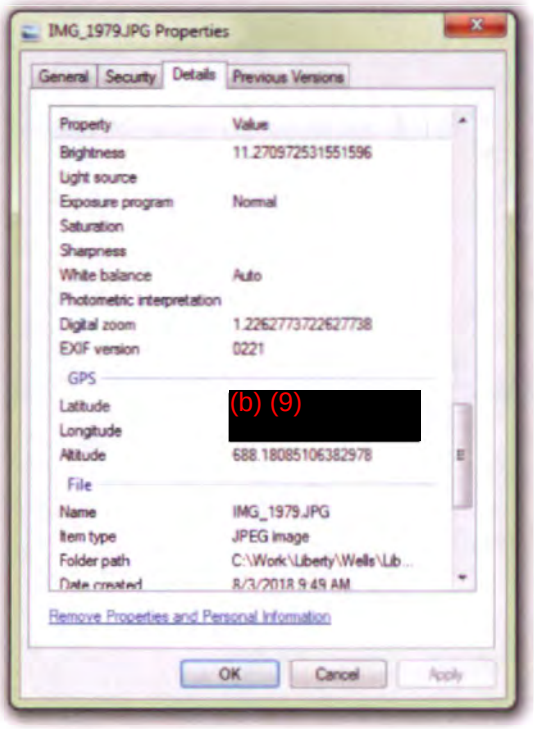
IMG_1979.JPG Properties
General
Security
Details
Previous Versions
Property
Value
Brightness
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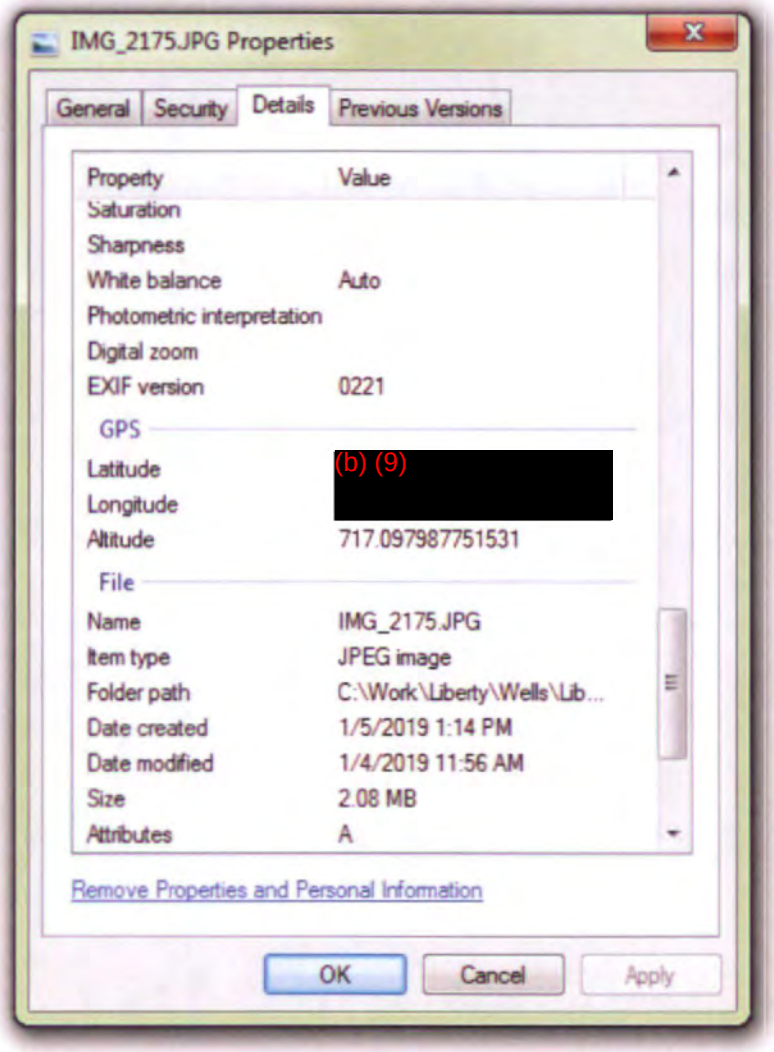
Light source
Exposure program
Normal
Saturation
Sharpness
White balance
Auto
Photometric interpretation
Digital zoom
1.2262773722627738
EXIF version
0221
GPS
Latitude
(b) (9)
Longitude
Altitude
688.18085106382978
File
Name
IMG_1979.JPG
Item type
JPEG image
Folder path
C:\Work\Liberty\Wells\Lib...
Date created
8/3/2018 9:49 AM
Remove Properties and Personal Information
OK
Cancel
Apply

IMG_2173.JPG

IMG_2174.JPG

IMG_2175.JPG



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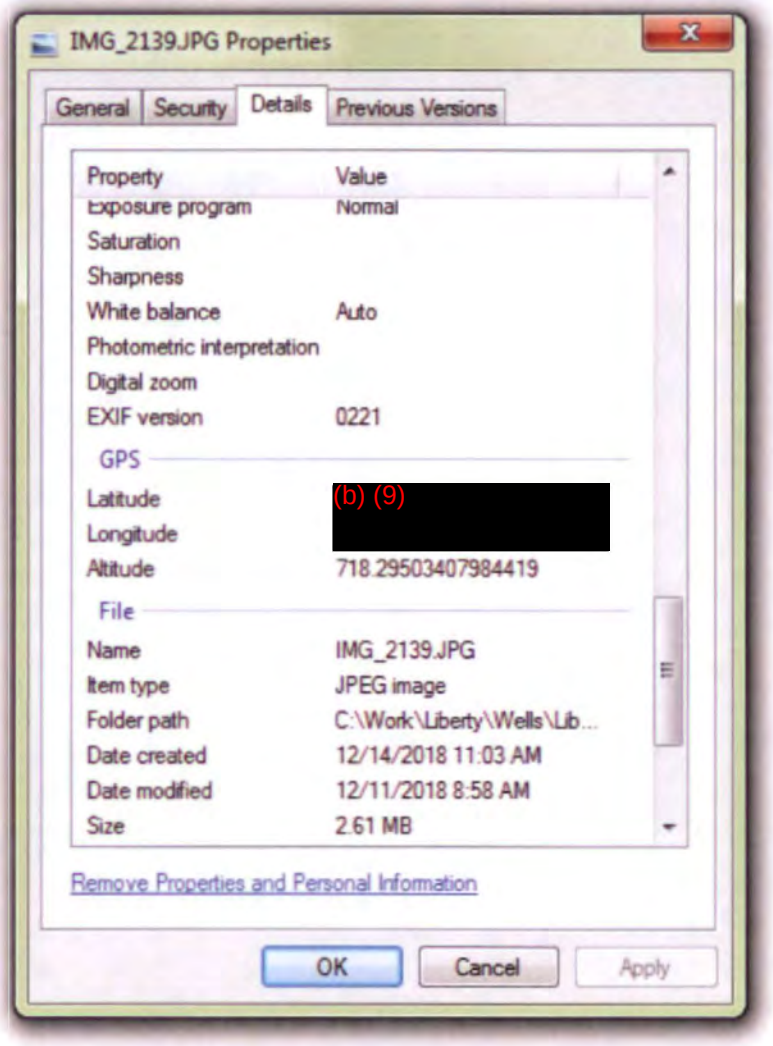
IMG_2138.JPG

IMG_2139.JPG



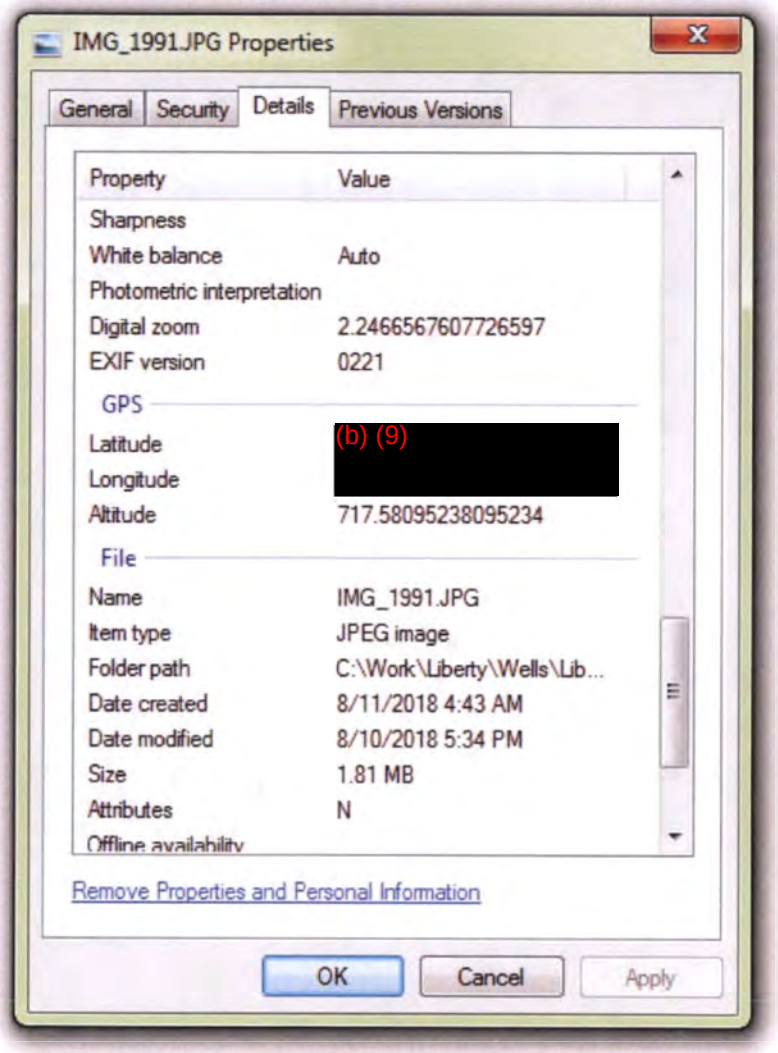
IMG_1990.JPG

IMG_1991.JPG

IMG_1992.JPG

IMG_1993.JPG

IMG_1994.JPG



40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Comm
For each affected facility, an owner or operator must include the information specified in paragraphs (b)(1)(i) through (iv) of this section in all ar

The asterisk (*) next to each field indicates that the corresponding field is required.

SITE INFORMATION

Facility Record No. * **(Field value will automatically generate if a value is not entered.)**	Company Name * (§60.5420a(b)(1)(i))	Facility Site Name * (§60.5420a(b)(1)(i))	US Well ID or US Well ID Associated with the Affected Facility, if applicable. * (§60.5420a(b)(1)(i))	Address of Affected Facility * (§60.5420a(b)(1)(i))	Address 2	City *
	e.g.: ABC Company	e.g.: XYZ Compressor Station	e.g.: 12-345-67890-12	e.g.: 123 Main Street	e.g.: Suite 100	e.g.: Brooklyn
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04246-00-00	Not Applicable	Not Applicable	Not Applicable
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04245-00-00	Not Applicable	Not Applicable	Not Applicable
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04244-00-00	Not Applicable	Not Applicable	Not Applicable
235088	LIBERTY RESOURCES MA	FOUR CORNERS PAD	33-061-04348-00-00	Not Applicable	Not Applicable	Not Applicable

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OCT 29 2019

Enforcement and Compliance Assurance Division

ıenced After September 18, 2015 - 60.5420a(b) Annual Report

ınual reports:

ALTERNATIVE ADDRESS INFORMATION (IF NO PHYSICAL ADDRE

County *	State Abbreviation *	Zip Code *	Responsible Agency Facility ID (State Facility Identifier)	Description of Site Location (§60.5420a(b)(1)(i))	Latitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))
e.g.: Kings County	e.g.: NY	e.g.: 11221		e.g.: 7 miles NE of the intersection of Hwy 123 and Hwy 456	e.g.: 34.12345
MOUNTRAIL	Not Applicable	Not Applicabl	35090	LOT3 18-158-92	(b) (9) [redacted]
MOUNTRAIL	Not Applicable	Not Applicabl	35089	LOT3 18-158-92	
MOUNTRAIL	Not Applicable	Not Applicabl	35088	LOT3 18-158-92	
MOUNTRAIL	Not Applicable	Not Applicabl	35709	LOT3 18-158-92	

SS AVAILABLE FOR SITE *)		REPORTING INFORMATION		PE Certification	ADDITIONAL INFORMATION	
Longitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))		Beginning Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Ending Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Please provide the file name that contains the certification signed by a qualified professional engineer for each closed vent system routing to a control device or process. * (§60.5420a(b)(12)) Please provide only one file per record.	Please enter any additional information.	Enter associated file name reference.
e.g.: -101.12345		e.g.: 01/01/2016	e.g.: 06/30/2016	e.g.: Certification.pdf **or** XYZCompressorStation.pdf		e.g.: addlinfo.zip **or** XYZCompressorStation .pdf
	(b) (9) [redacted]	8/2/2018	8/1/2019	TVCS.pdf	Emission rate de	rate_determination.pdf
		8/2/2018	8/1/2019	TVCS.pdf	Emission rate de	rate_determination.pdf
		8/2/2018	8/1/2019	TVCS.pdf	Emission rate de	rate_determination.pdf
		8/2/2018	8/1/2019	TVCS.pdf	Emission rate de	rate_determination.pdf

40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruc
For each storage vessel affected facility, an owner or operator must include the information specified in paragraphs (b)(6)(i) through

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Select from dropdown list** - *may need to scroll up* **)**	Storage Vessel ID * (§60.5420a(b)(1)(ii) and §60.5420a(b)(6)(i))	Was the storage vessel constructed, modified or reconstructed during the reporting period? * (§60.5420a(b)(6)(i))	Latitude of Storage Vessel (Decimal Degrees to 5 Decimals Using the North American Datum of 1983) * (§60.5420a(b)(6)(i))	Longitude of Storage Vessel (Decimal Degrees to 5 Decimals Using the North American Datum of 1983) * (§60.5420a(b)(6)(i))
	e.g.: Tank 125	e.g.: modified	e.g.: 34.12345	e.g.: -101.12345
235088 Four Corners CTB		Constructed	(b) (9)	(b) (9)

:tion Commenced After September 18, 2015 - 60.5420a(b) Annual Report
(vii) of this section in all annual reports:

If new affected facility or if returned to service during the reporting period, provide documentation of the VOC emission rate determination according to §60.5365a(e).* (§60.5420a(b)(6)(ii))	Records of deviations where the storage vessel was not operated in compliance with requirements * (§60.5420a(b)(6)(iii) and §60.5420a(c)(5)(iii))	Have you met the requirements specified in §60.5410a(h)(2) and (3)?* (§60.5420a(b)(6)(iv))
e.g.: VOC emission rate is 6.5 tpy. See file rate_determination.pdf for more information.	e.g.: On October 12, 2016, the pilot flame was not functioning on the combustion unit controlling the storage vessel.	e.g.: Yes
VOC emission rate is 6.57 tpy/tank, See rate_(	None	Yes

Removed from service during the reporting period? * (§60.5420a(b)(6)(v))	If removed from service, the date removed from service. * (§60.5420a(b)(6)(v))	Returned to service during the reporting period? * (§60.5420a(b)(6)(vi))	If returned to service, the date returned to service. * (§60.5420a(b)(6)(vi))	Make of Purchased Device * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(A))	Model of Purchased Device * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(A))
e.g.: Yes	e.g.: 11/15/16	e.g.: Yes	e.g.: 11/15/16	e.g.: Incinerator Guy	e.g.: 400 Combustor
NA	NA	NA	NA		

Storage Vessels Constructed, Modified, Reconstructed or Returned to Service During Reporting Period th

Serial Number of Purchased Device * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(A))	Date of Purchase * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(B))	Copy of Purchase Order * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(C))	Latitude of Control Device (Decimal Degrees to 5 Decimals Using the North American Datum of 1983) * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(D))	Longitude of Control Device (Decimal Degrees to 5 Decimals Using the North American Datum of 1983) * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(D))
e.g.: 123B3D392	e.g.: 12/10/16	e.g.: purchase_order.pdf **or** XYZCompressorStation.pdf	e.g.: 34.12340	e.g.: -101.12340

at Comply with §60.5395a(a)(2) with a Control Device Tested Under § 60.5413a(d)

Inlet Gas Flow Rate * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(E))	Please provide the file name that contains the Records of Pilot Flame Present at All Times of Operation * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(F)(*1*)) Please provide only one file per record.	Please provide the file name that contains the Records of No Visible Emissions Periods Greater Than 1 Minute During Any 15-Minute Period * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(F)(*2*)) Please provide only one file per record.	Please provide the file name that contains the Records of Maintenance and Repair Log * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(F)(*3*)) Please provide only one file per record.	Please provide the file name that contains the Records of Visible Emissions Test Following Return to Operation From Maintenance/Repair Activity * (§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(F)(*4*)) Please provide only one file per record.
e.g.: 3000 scfh	e.g.: pilotflame.pdf **or** XYZCompressorStation.pdf	e.g.: noemissions.pdf **or** XYZCompressorStation.pdf	e.g.: maintainlog.pdf **or** XYZCompressorStation.pdf	e.g.: emistest.pdf **or** XYZCompressorStation.pdf

Please provide the file name that contains the Records of Manufacturer's Written Operating Instructions, Procedures and Maintenance Schedule *
(§60.5420a(b)(6)(vii) and §60.5420a(c)(5)(vi)(F)(5))
Please provide only one file per record.

e.g.: manufinsruct.pdf **or** XYZCompressorStation.pdf

NM 1MBH, CO 2TFH, AZ 4MBH, UT 4MBH

Tanks

Flare Gas Volume	151,248 scf/day
Lower Heating Value	2000 Btu/scf
Molecular Weight	45.19 lb/lb-mole
VOC wt Fraction	79.80%
HAP wt Fraction	2.26%

BOPD for first 30 days: 2,575
Decline Factor: 0.6
Bakken EF scf/bbl: 97.91
Number of Tanks: 8

Controlled emissions are calculated based on a 98% destruction efficiency of the VOC gas.

VOC: 6,302 scf/hr x 1/379 scf/lb-mole x 45.19 lb/lb-mole x 79.80% x 98% = 11.99 lb/hr

11.99 lb/hr x 8760 hr/yr x 1 ton/2000 lb x 98% = 52.53 TPY 6.57 tpy/tank

HAP 6,302 scf/hr x 1/379 scf/lb-mole x 45.19 lb/lb-mole x 2.26% x 98% = 0.34 lb/hr

0.34 lb/hr x 8760 hr/yr x 1 ton/2000 lb x 98% = 1.49 TPY

NOx: 6,302 scf/hr x 2,000 Btu/scf x 1 MMBtu/1,000,000 Btu x 0.068 lb/MMBtu = 0.86 lb/hr

0.86 lb/hr x 8760 hr/yr x 1 ton/2000 lb = 3.75 TPY

CO: 6,302 scf/hr x 2,000 Btu/scf x 1 MMBtu/1,000,000 Btu x 0.370 lb/MMBtu = 4.66 lb/hr

4.66 lb/hr x 8760 hr/yr x 1 ton/2000 lb = 20.43 TPY

NOx & CO emission factors are from AP-42 Table 13.5-1
(Emission Factors for Flare Operations).

HALKER
CONSULTING

7936 E. Arapahoe Ct., Suite 3200
Centennial, CO 80112
303-515-2700

FOUR CORNERS CTB TANK VENT LINE DESIGN AND CAPACITY ASSESSMENT

Document Number: 19023-01-MEMO-001-REV A, Dated 5/23/2019

(b) (6) [redacted]

TO: Liberty Resources

FROM: Halker Consulting

DATE: 5/23/19

RE: Four Corners CTB Tank Vent Line Design and Capacity Assessment

The US EPA finalized "Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Commenced After September 18, 2015" on June 3, 2016. This regulation has requirements for certifying the design of closed vent systems. An assessment of the closed vent must be performed to determine it is of sufficient design and capacity to ensure that all emissions from storage vessels are routed to the control device or process and have it certified by a qualified professional engineer. This regulation is 40 CFR 60 Subpart OOOOa, referred to as the OOOOa regulation.

Certification for 40 CFR 60.5411a(d):

"I certify that the closed vent system design and capacity assessment was prepared under my direction or supervision. I further certify that the closed vent system design and capacity assessment was conducted, and this report was prepared pursuant to the requirements of Subpart OOOOa of 40 CFR part 60. Based on my professional knowledge and experience, and inquiry of personnel involved in the assessment, the certification submitted herein is true, accurate, and complete. I am aware that there are penalties for knowingly submitting false information."

Purpose:

Evaluate the Four Corners central tank battery (CTB) tank vent line design to ensure that the thief hatches, set at 16 oz/in^{2}g, will not open during normal operating flow rates. The thief hatches (PVRVs) installed are LaMOT L12-TL-08-1VVG-16-04-0 and are set at 16 oz/in^{2}g and has a leakage rate of 1 SCFH @ 90% of set pressure per LaMOT literature. The normal flow path for the vapor from the storage tanks will be to one Steffes Air Assist flare tip to meet OOOOa regulations.

Results:

The closed vent system was modeled based on As-Built vent routing as of May 18th, 2019. Please note that any modifications to the vent header will require revision to this memo. Halker Consulting evaluated the pipe routing from the storage tank to the combustion device and calculated the expected pressure drop in the system during the maximum predicted vapor flow rates. The pressure at the outlet of the combustion device was set at local atmospheric pressure of approximately 13.5 psia. A sketch of the pipe routing and dimensions is provided in (**Attachment 2**) for the facility.

Under normal operations during peak production, the expected backpressure does not exceed 10 oz/in^{2}g (69% of the crack open PVRV pressure).

Observations and Recommendations:

In order to minimize the backpressure on the tank and therefore minimize the possibility of venting uncombusted vapors, Halker recommends not installing inline components that add additional pressure drop through the tank vapor system, including: swing check valves, pressure control devices, and unnecessary ball, gate, or globe valves. All installed inline valves in the vent header shall be locked open. Additionally, the tank vapor system should be routed in a manner that does not allow liquids to build up inside the pipeline. This allows for minimizing pressure drop through the system by being able to utilize the entire cross-sectional area

of the piping configuration as well as minimizing the possibility of sending liquids to the combustor.

For this facility the minimum slope requirements were met to minimize liquid build up at a slope of ¼" per 10' of pipe toward the second knockout drum.

Calculations:

The current facility design includes eight 500BBL oil tanks, four 500BBL produced water tanks, and one 400BBL fresh water tank that all tie into a common tank vent header. The installed combustion device is a Steffes Air Assist LP flare tip (200 Mscfd capacity). Combustion device pressure drops were estimated based on the vendor provided pressure drop curves **(Attachment 3)**. The inline flame arrestor is an Enardo Series 7 (70804) with an estimated pressure drop based on vendor provided curves **(Attachment 4)**. Each tank is fitted with a LaMOT L12-TL-08-1VVG-16-04-0.

The overall production rates from Liberty provided type curves **(Attachment 5)** were input into a process modeling software (VMG) to predict the amount of flash gas off the tanks during normal operation. The peak predicted production is 2,634 bbls of oil which would correspond to 151 MSCFD (707 lb/hr) of flash gas produced off the tanks.

Predicted backpressure on the tanks was calculated by assuming that half of all produced flash gas comes from the furthest tank in each row for conservatism. Once combined, the total flash gas hydraulic loses were calculated through both knockout vessels, the flame arrestor, the combustion device, and all associated piping **(Attachment 1)**.

Standard pressure drop "K" value for fittings and valves per Crane Technical Paper 410 were used. The value used for the absolute roughness of steel was conservatively assumed as 0.0005 ft.

Disclaimer:

This assessment meets the certification requirements of 40 CFR part 60 Subpart 0000a. It is the responsibility of *Liberty Resources* to comply with the reporting requirements of this regulation.

This evaluation does not consider the destructive efficiency of the control device or components upstream of the tank vent design.

Attachments:

1. Hydraulic Calculations
2. Tank Battery Sketch
3. Combustor Pressure Drop VS Flow Curve
4. Flame Arrestor Pressure Drop VS Flow Curve
5. Liberty Oil Production Curve

Attachment 1- Hydraulic Calculations

Hydraulic Calculations

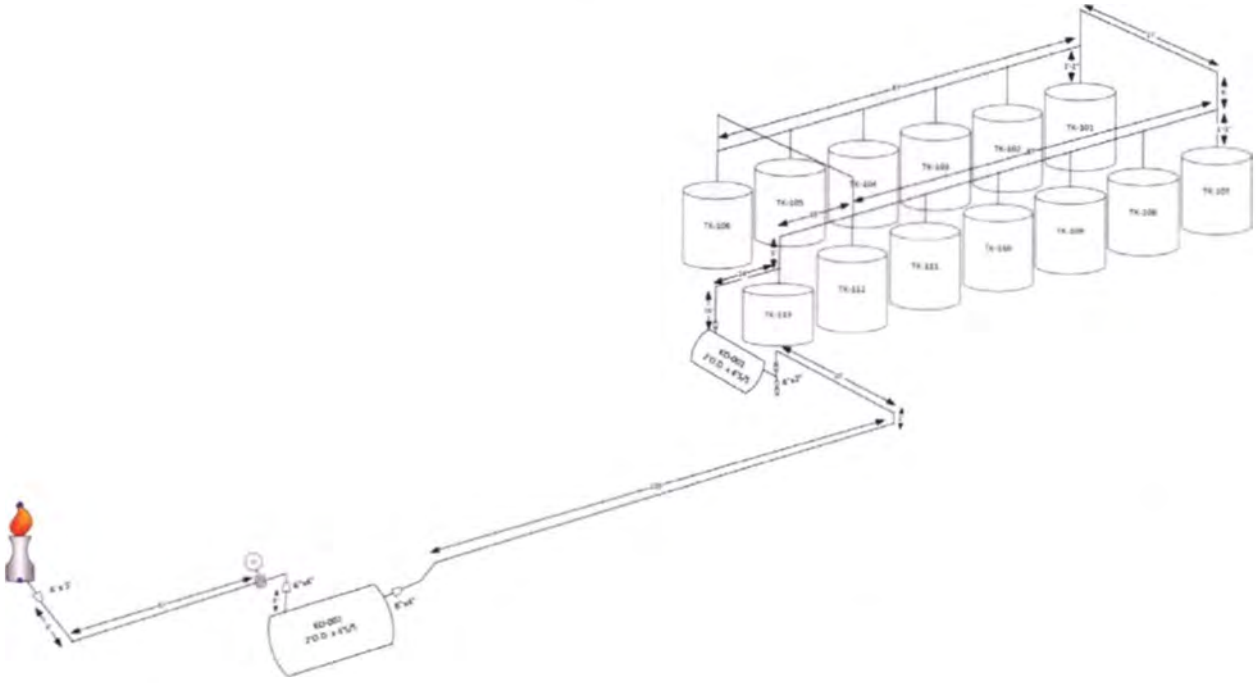
Client: Liberty Resources
Project: Four Corners CTB
Location: Tioga, ND
Unit: TVCS
Proj #: 19023-01
By/Chk'd: AWD
Rev/Date: A 22-May-19
Atm Pres: 13.5
Pres Unit: psia
Basis / Notes -->

			9	8	7	6	5	4	3	2	1
			Flare	Flame arrestor to 4"x3" reducer	Flame arrestor	KD-002 to flame arrestor	KD-002	KD-001 to KD-002	KD-001	Combined header to KD-001	Start of TVCS at Tank-001 to combined
	SEGMENT ID		G	H	I	J	K	L	M	N	O
Pressure Data	Upstream Segment ID or known press.	psia									
	Downstream Segment ID or known press.	psia	13.50	G	H	I	J	K	L	M	N
	Is known pressure Up or Downstream (U or D)?		d	d	d	d	d	d	d	d	d
Fric Method											
Holdup Meth											
Pipe	Pipe Roughness	ft	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050
	Nominal Line Size or Internal Diameter	inches	3.000	4.000	4.000	6.000	24.000	4.000	24.000	4.000	4.000
	Schedule (40, std, etc.) Blank if I.D. given above		40	40	40	40	40	40	40	40	40
	Straight pipe length	ft	0.0	50.0	0.0	0.5	4.0	247.0	4.0	50.0	117.1
Elevation	Inlet & Outlet OR	Inlet ft									
		Outlet ft									
	Difference (Outlet - Inlet)	Difference ft	0.0	0.0	0.0	0.5	0.0	0.0	0.0	-21.0	1.1
3K Method	90's	Std (R/D=1), threaded		1		1		3		2	2
	90's	Short Radius (R/D=1), flgd/welded									
		Standard (R/D=1.5), all types									
	Mitered	1 weld (90 deg angle)									
		2 weld (45 deg angle)									
		3 weld (30 deg angle)									
Elbows	Choose type	Plug Valve Branch Flow									
	Choose type	Plug Valve Straight Thru									
	45's	Short Radius (R/D=1), all types									
	45's	Standard (R/D=1.5), all types						2			
		Mitered, 1 weld, 45 deg angle									
		Mitered, 2 weld, 22.5 deg angle									
	Choose type	Ball Valve Full Port									
	180's	Close Return (R/D=1), threaded									
		Close Return (R/D=1), flgd/welded									
	180	Standard (R/D=1.5), all types									
Tees	Used as an Elbow	Standard (R/D=1), threaded					1			1	3
		Long-radius (R/D=1.5), threaded									
		Standard (R/D=1), flanged or welded									
		Stub-in type branch									
	Flow-thru Tee	Threaded									4
		Flanged or Welded									
		Stub-in type branch									
Valves	Gate, Ball or Plug	Full line size, Beta=1.0						1		1	
		Reduced trim, Beta=0.9									
		Reduced trim, Beta=0.8									
	Globe, standard										
	Globe - (Angle or Y-type) or Diaphragm (dam type)										
	Butterfly										
	Check	Lift - min vel (ft/s)= 35/(dens lb/ft3)^.5									
		Swing - min vel (ft/s)= 40/(dens lb/ft3)^.5									
		Tilting-disk									
Other DP	Pipe Entrance/Exit?(0=none, 1=entr., 2=exit, 3=both)						1	2	1	2	1
	Swage to Diameter (at end)	in		3.068		4.026		24.000	4.026	24.000	
	Orifice Diameter	in									
	Initial Swage from Diameter	in					6.065				
	Other Pressure Drop (Equip. etc.)	psi	0.138		0.3000						
	Other Head Pressure Drop (Equip. etc.)	ft fluid									
	Valve Cv (Non-flashing liquid only!)	gpm/psi^.5									
	Miscellaneous Flow Resistance	K factor									
Liquid	Flow (provide mass OR volume basis)	lb/hr									
		gpm									
	Density	lb/ft3									
	Viscosity	cP									
	Surface Tension (2 phase only)	dyne/cm									
Vapor	Flow Rate	lb/hr	706.88	706.88	706.88	706.88	706.88	706.88	706.88	706.88	353.44
	Density OR MW, Z & T	Density lb/ft3									
		MW	42.57	42.57	42.57	42.57	42.57	42.57	42.57	42.57	42.57
		Z	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987	0.987
		Temp F	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4	92.4
	Vapor Viscosity	cP	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
Pipe Internal Diameter		in	3.068	4.026	4.026	6.065	22.624	4.026	22.624	4.026	4.026
DP / Holdup Calculation Methods			Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh	Duk/Hugh
Liquid	Flow rate	lb/hr	0	0	0	0	0	0	0	0	0
	Flow rate	gpm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Density	lb/ft3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Viscosity	cP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Surface Tension (2 phase only)	dyne/cm	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vapor	Flow Rate	lb/hr	707	707	707	707	707	707	707	707	353
	Vapor Viscosity	cP	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
	Segment Average Pressure	psig	0.07	0.15	0.31	0.47	0.47	0.52	0.58	0.59	0.61
	Vapor Density (Avg)	lb/ft3	0.0988	0.0994	0.1006	0.1017	0.1017	0.1021	0.1025	0.1026	0.1026
Flow Parameters	Bulk Density (Avg)	lb/ft3	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
	Pipe Flow Area	ft2	0.0513	0.0884	0.0884	0.2006	2.7917	0.0884	2.7917	0.0884	0.0884
	Bulk Velocity	ft/sec	38.71	22.36	22.08	9.62	0.69	21.75	0.69	21.65	10.81
	Erosional Velocity if solids present	ft/sec	318.14	317.21	315.32	313.58	313.57	312.94	312.32	312.18	311.94
	Average Viscosity	cP	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009	0.009
	Elevation Change (Outlet-Inlet)	ft	0.0	0.0	0.0	0.5	0.0	0.0	0.0	-21.0	1.1
	Reynolds Number (NRe)		1.67E+05	1.28E+05	1.28E+05	8.47E+04	2.27E+04	1.28E+05	2.27E+04	1.28E+05	6.38E+04
	Friction Factor f (Colebrook & White)		0.0243	0.0233	0.0233	0.0225	0.0257	0.0233	0.0257	0.0233	0.0246
Friction	K (straight pipe)		0.00	3.48	0.00	0.02	0.05	17.17	0.05	3.48	8.60
	K (fittings + valves)		0.00	0.52	0.00	0.48	0.73	2.09	0.00	2.19	5.39
	K (entrance + exit + swages + orifice)		0.00	0.20	0.00	0.42	170.41	1.98	102.43	1.98	0.61
	K (Miscellaneous Flow Resistance + Valve Cv)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total K		0.00	4.19	0.00	0.92	171.19	21.24	102.48	7.64	14.60
	Velocity Head (Average Density Basis)	ft fluid	23.29	7.75	7.58	1.44	0.01	7.35	0.01	7.28	1.81
	Equivalent length	ft	0.0	69.2	0.0	20.6	12554.7	305.6	7515.8	119.0	198.8
TOTAL	Upstream Pressure before CV	psig	**0.1375**	**0.1599**	**0.4659**	**0.4672**	**0.4681**	**0.5789**	**0.5795**	**0.6042**	**0.6239**
	Available Upstream Control Valve DP	psi									
	Segment Upstream pressure	psig	**0.14**	**0.16**	**0.47**	**0.47**	**0.47**	**0.58**	**0.58**	**0.60**	**0.62**
	Static Head Pressure Drop	psi	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.00
	Other Pressure Drop (Equip & Allow)	psi	0.14	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00
	Friction Pressure Drop	psi	0.00	0.02	0.00	0.00	0.00	0.11	0.00	0.04	0.02
	Acceleration Factor		2.36E-03	7.85E-04	7.66E-04	1.45E-04	7.52E-07	7.44E-04	7.40E-07	7.36E-04	1.84E-04
	Total System Pressure Drop	psi	0.14	0.02	0.31	0.00	0.00	0.11	0.00	0.02	0.02
	Segment Downstream Pres., before C.V.	psig	**0.00**	**0.14**	**0.16**	**0.47**	**0.47**	**0.47**	**0.58**	**0.58**	**0.60**
	Available Downstream Control Valve DP	psi									
	Pressure after Control Valve	psig	**0.0000**	**0.1375**	**0.1599**	**0.4659**	**0.4672**	**0.4681**	**0.5789**	**0.5795**	**0.6042**
	Error Status		OK	OK	OK	OK	OK	OK	OK	OK	OK
	Vent Rate:		[illegible]	MSCFD							

<= **8.98 oz/in2**

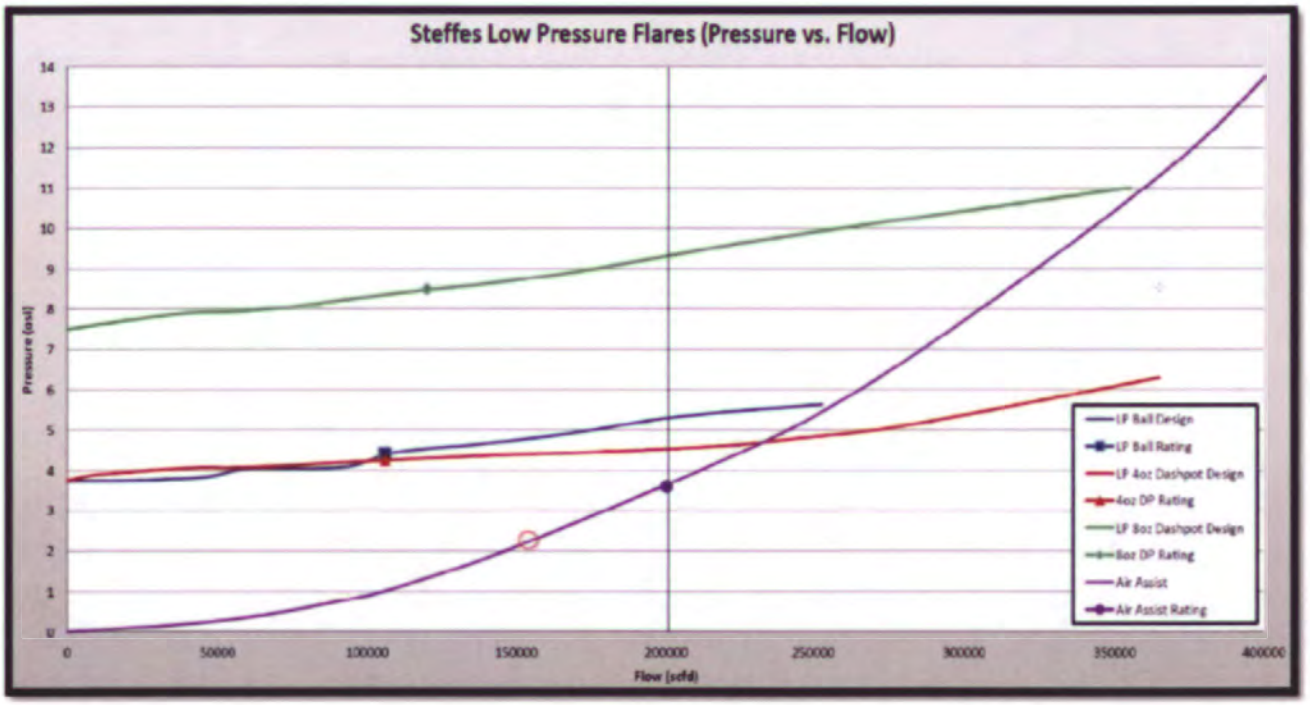
69% Of PVRV Crack Pressure

Attachment 2- Tank Battery Sketch



7936 E. Arapahoe Ct., Suite 3200
Centennial, CO 80112
303-515-2700

Attachment 3- Combustor Pressure Drop VS Flow Curve


Steffes Low Pressure Flares (Pressure vs. Flow)
Pressure (psi)
Flow (scfd)
0
50000
100000
150000
200000
250000
300000
350000
400000
LF Ball Design
LF Ball Rating
LF 4oz Dashpot Design
4oz DP Rating
LF 8oz Dashpot Design
8oz DP Rating
Air Assist
Air Assist Rating

Attachment 4- Flame Arrestor Pressure Drop VS Flow Curve

EMERSON
Process Management

9932 East 58th Street Tulsa Oklahoma 74146

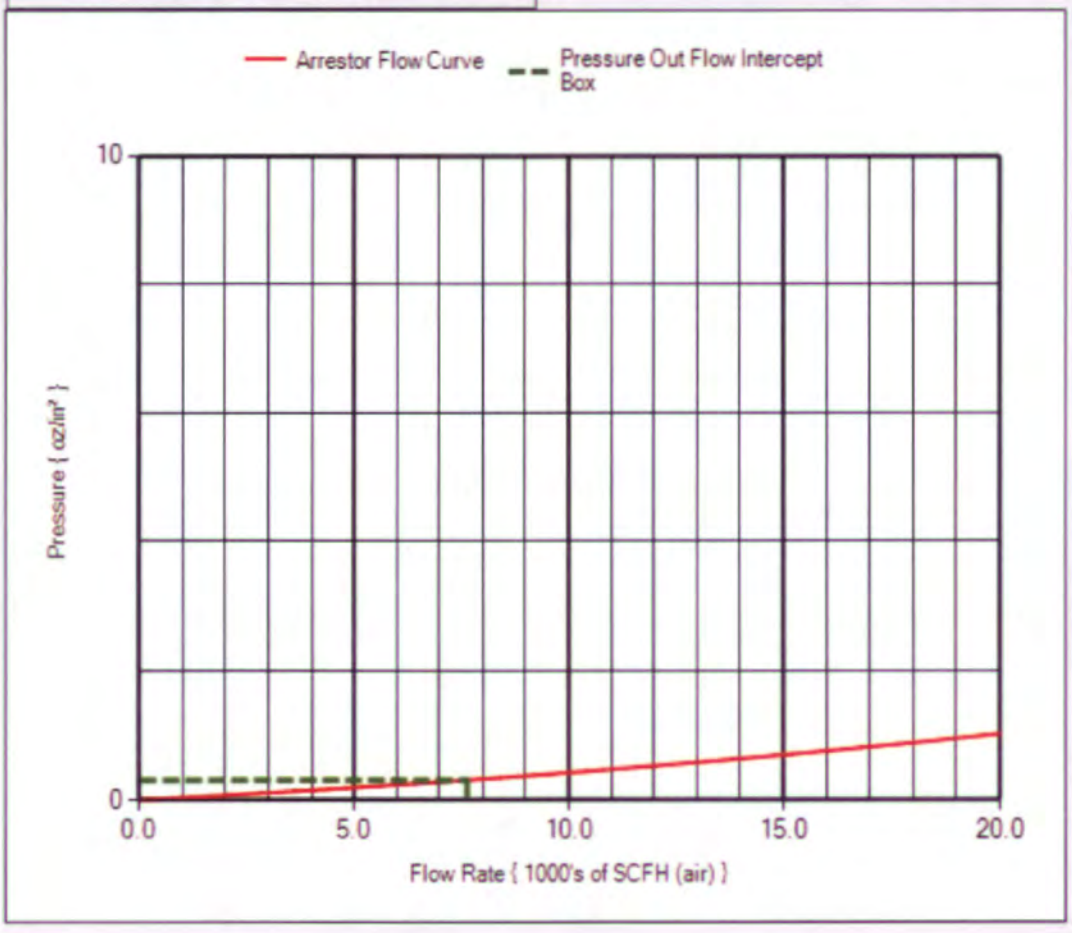
22-May-2019

Enardo Model: Arrestor Series 7 - Aluminum Only
Connection Size: 70804-4" - Aluminum Only inches

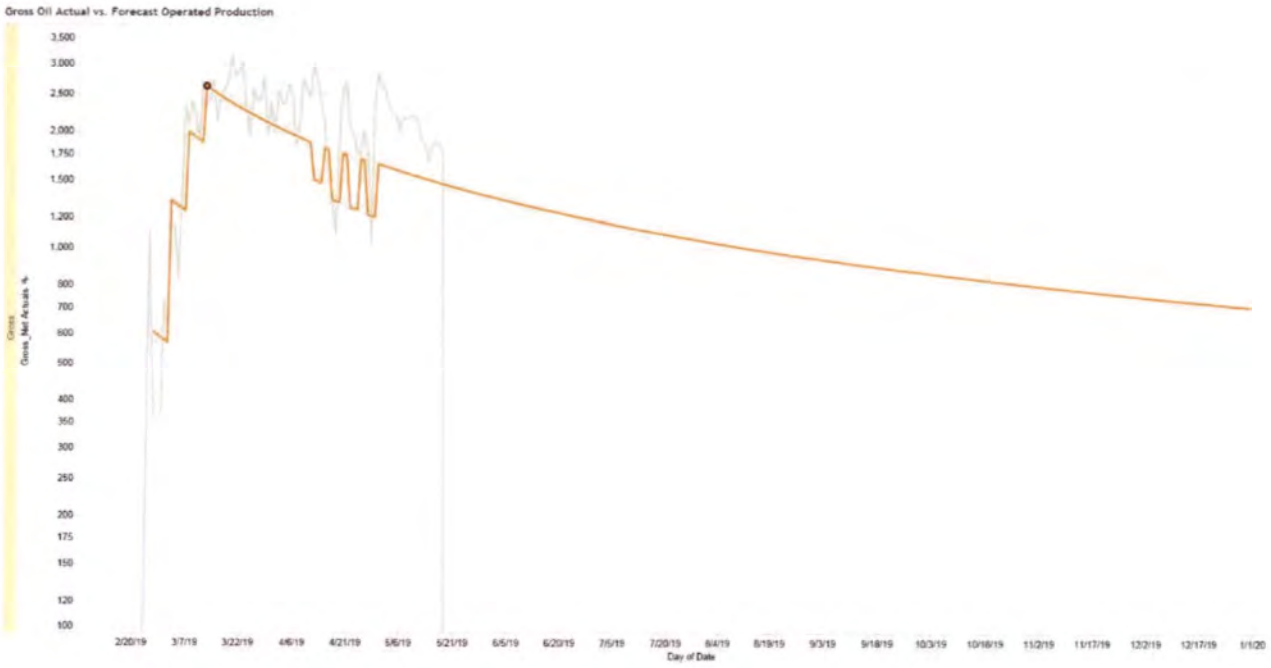
Arrestor is Concentric

PRESSURE

Flow Rate:	7638	SCFH (air)
Gas Group:	D	
Pressure at flow:	0.306	oz/in²
% of Max Pess Drop:	1.91	%



Attachment 5- Liberty Oil Production Curve


Gross Oil Actual vs. Forecast Operated Production
Gross
Gross_Net Actuals
3,500
3,000
2,500
2,000
1,750
1,500
1,200
1,000
900
700
600
500
400
350
300
250
200
175
150
120
100
2/20/19
3/7/19
3/22/19
4/6/19
4/21/19
5/6/19
5/21/19
6/5/19
6/20/19
7/5/19
7/20/19
8/4/19
8/19/19
9/3/19
9/18/19
10/3/19
10/18/19
11/2/19
11/17/19
12/2/19
12/17/19
1/1/20
Day of Date

40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Comm

For each affected facility, an owner or operator must include the information specified in paragraphs (b)(1)(i) through (iv) of this section in all ar

The asterisk (*) next to each field indicates that the corresponding field is required.

SITE INFORMATION

Facility Record No. * **(Field value will automatically generate if a value is not entered.)**	Company Name * (§60.5420a(b)(1)(i))	Facility Site Name * (§60.5420a(b)(1)(i))	US Well ID or US Well ID Associated with the Affected Facility, if applicable. * (§60.5420a(b)(1)(i))	Address of Affected Facility * (§60.5420a(b)(1)(i))	Address 2	City *
	e.g.: ABC Company	e.g.: XYZ Compressor Station	e.g.: 12-345-67890-12	e.g.: 123 Main Street	e.g.: Suite 100	e.g.: Brooklyn
10328	LIBERTY RESOURCES MA	HEMSING 1	33-105-01081-00-00	Not Applicable	Not Applicable	Not Applicable
11164	LIBERTY RESOURCES MA	HEMSING 2-33	33-105-01143-00-00	Not Applicable	Not Applicable	Not Applicable
11405	LIBERTY RESOURCES MA	HEMSING 1-4	33-105-01173-00-00	Not Applicable	Not Applicable	Not Applicable
14898	LIBERTY RESOURCES MA	GOHRICK 1	33-105-01470-00-00	Not Applicable	Not Applicable	Not Applicable
16233	LIBERTY RESOURCES MA	H. RICE 1-26H	33-061-00501-00-00	Not Applicable	Not Applicable	Not Applicable
16332	LIBERTY RESOURCES MA	EVERTSON AOG CHAM	33-105-01583-00-00	Not Applicable	Not Applicable	Not Applicable
17074	LIBERTY RESOURCES MA	EN-MOLLET-158-93- 2	33-061-00668-00-00	Not Applicable	Not Applicable	Not Applicable
17109	LIBERTY RESOURCES MA	RYSTEDT 4-11H	33-061-00685-00-00	Not Applicable	Not Applicable	Not Applicable
17169	LIBERTY RESOURCES MA	CLARK 16-27H	33-013-01397-00-00	Not Applicable	Not Applicable	Not Applicable
17265	LIBERTY RESOURCES MA	DOUTS 4-7H	33-013-01412-00-00	Not Applicable	Not Applicable	Not Applicable
21021	LIBERTY RESOURCES MA	FRANK 24-24H-1324-1	33-023-00731-00-00	Not Applicable	Not Applicable	Not Applicable
21022	LIBERTY RESOURCES MA	LOUIE 24-24H-2536-1(	33-023-00732-00-00	Not Applicable	Not Applicable	Not Applicable
21717	LIBERTY RESOURCES MA	TEMPLE 21-1H-2536-1	33-105-02409-00-00	Not Applicable	Not Applicable	Not Applicable
21718	LIBERTY RESOURCES MA	OVERDORF 21-1H-011	33-105-02410-00-00	Not Applicable	Not Applicable	Not Applicable
23205	LIBERTY RESOURCES MA	ND STATE 24-16H-091	33-105-02690-00-00	Not Applicable	Not Applicable	Not Applicable

23206	LIBERTY RESOURCES MA	MCGREGOR 24-16H-2:	33-105-02691-00-00	Not Applicable	Not Applicable Not Applicable
24576	LIBERTY RESOURCES MA	MAYBERY 44-7H-0607	33-105-02928-00-00	Not Applicable	Not Applicable Not Applicable
24577	LIBERTY RESOURCES MA	ELROY 44-7H-0607-15	33-105-02929-00-00	Not Applicable	Not Applicable Not Applicable
24599	LIBERTY RESOURCES MA	LARENA 21-8H-0817-1	33-105-02934-00-00	Not Applicable	Not Applicable Not Applicable
24600	LIBERTY RESOURCES MA	LEON 21-8H-0817-158	33-105-02935-00-00	Not Applicable	Not Applicable Not Applicable
26192	LIBERTY RESOURCES MA	HOVE 11-21H-2128-15	33-105-03164-00-00	Not Applicable	Not Applicable Not Applicable
26193	LIBERTY RESOURCES MA	MORRIS 11-21H-0916-	33-105-03165-00-00	Not Applicable	Not Applicable Not Applicable
26623	LIBERTY RESOURCES MA	ERLING 14-7H-0607-1	33-105-03235-00-00	Not Applicable	Not Applicable Not Applicable
26624	LIBERTY RESOURCES MA	ALVIN 14-7H-1819-15	33-105-03236-00-00	Not Applicable	Not Applicable Not Applicable
26825	LIBERTY RESOURCES MA	YOGI 14-7H-0607-158	33-105-03283-00-00	Not Applicable	Not Applicable Not Applicable
26826	LIBERTY RESOURCES MA	EDNA 14-7H-1819-158	33-105-03284-00-00	Not Applicable	Not Applicable Not Applicable
27334	LIBERTY RESOURCES MA	RON BURGUNDY 3-23-	33-105-03375-00-00	Not Applicable	Not Applicable Not Applicable
31925	LIBERTY RESOURCES MA	HAUSTVEIT 155-95-12	33-105-04186-00-00	Not Applicable	Not Applicable Not Applicable
32072	LIBERTY RESOURCES MA	HOLTE 161-94-30-31-5	33-013-01822-00-00	Not Applicable	Not Applicable Not Applicable
32073	LIBERTY RESOURCES MA	HOLTE 161-94-19-18-5	33-013-01823-00-00	Not Applicable	Not Applicable Not Applicable
32389	LIBERTY RESOURCES MA	TANK 156-98-1-12-2M	33-105-04232-00-00	Not Applicable	Not Applicable Not Applicable
32391	LIBERTY RESOURCES MA	ANDERSON 156-97-4-5	33-105-04233-00-00	Not Applicable	Not Applicable Not Applicable
33134	LIBERTY RESOURCES MA	T. HAUSTVEIT E 156-9!	33-105-04311-00-00	Not Applicable	Not Applicable Not Applicable
33233	LIBERTY RESOURCES MA	MCGINNITY E 159-95-:	33-105-04345-00-00	Not Applicable	Not Applicable Not Applicable
33292	LIBERTY RESOURCES MA	WALDON W 157-97-2(	33-105-04356-00-00	Not Applicable	Not Applicable Not Applicable
33293	LIBERTY RESOURCES MA	WALDON W 157-97-2(	33-105-04357-00-00	Not Applicable	Not Applicable Not Applicable
33408	LIBERTY RESOURCES MA	OLSON C 158-96-21-1	33-105-04397-00-00	Not Applicable	Not Applicable Not Applicable
33473	LIBERTY RESOURCES MA	JENSEN W 159-93-21-5	33-013-01835-00-00	Not Applicable	Not Applicable Not Applicable
33497	LIBERTY RESOURCES MA	KAITLYN 158-93-30-31	33-061-04041-00-00	Not Applicable	Not Applicable Not Applicable
33498	LIBERTY RESOURCES MA	HALEY 158-93-29-32-1	33-061-04042-00-00	Not Applicable	Not Applicable Not Applicable
33551	LIBERTY RESOURCES MA	ESTHER 158-93-28-33-	33-061-04053-00-00	Not Applicable	Not Applicable Not Applicable
33552	LIBERTY RESOURCES MA	ALBERTSON 158-93-27	33-061-04054-00-00	Not Applicable	Not Applicable Not Applicable
33680	LIBERTY RESOURCES MA	RICE 158-94-25-36-1M	33-061-04067-00-00	Not Applicable	Not Applicable Not Applicable
33712	LIBERTY RESOURCES MA	STORSUL C 158-93-8-5	33-061-04081-00-00	Not Applicable	Not Applicable Not Applicable
33944	LIBERTY RESOURCES MA	ROBERT W 159-94-1-2	33-013-01843-00-00	Not Applicable	Not Applicable Not Applicable
34769	LIBERTY RESOURCES MA	MARTIN C 158-93-11-2	33-061-04219-00-00	Not Applicable	Not Applicable Not Applicable
35371	LIBERTY RESOURCES MA	PATRICIA W 159-94-12	33-013-01874-00-00	Not Applicable	Not Applicable Not Applicable
216999	LIBERTY RESOURCES MA	EN NELSON 76-92 FACI	33-061-00631-00-00	Not Applicable	Not Applicable Not Applicable
216999	LIBERTY RESOURCES MA	EN NELSON 76-92 FACI	33-061-00825-00-00	Not Applicable	Not Applicable Not Applicable

216999	LIBERTY RESOURCES MA	EN NELSON 76-92 FACI	33-061-00894-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03536-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03537-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03538-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03539-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03592-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03963-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03964-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03965-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03966-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-03967-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04278-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04279-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04280-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04281-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04282-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04283-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04287-00-00	Not Applicable	Not Applicable	Not Applicable
228439	LIBERTY RESOURCES MA	LEON PAD	33-105-04288-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03669-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03729-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03730-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03731-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03732-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03733-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03734-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03775-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03776-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03777-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03778-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03779-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03780-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03856-00-00	Not Applicable	Not Applicable	Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03857-00-00	Not Applicable	Not Applicable	Not Applicable

229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03858-00-00	Not Applicable	Not Applicable Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03864-00-00	Not Applicable	Not Applicable Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03865-00-00	Not Applicable	Not Applicable Not Applicable
229101	LIBERTY RESOURCES MA	ND STATE PAD	33-105-03895-00-00	Not Applicable	Not Applicable Not Applicable
234930	LIBERTY RESOURCES MA	DOUBLE R CENTRAL FA	33-061-04232-00-00	Not Applicable	Not Applicable Not Applicable
234930	LIBERTY RESOURCES MA	DOUBLE R CENTRAL FA	33-061-04243-00-00	Not Applicable	Not Applicable Not Applicable
235096	LIBERTY RESOURCES MA	STANLEY CENTRAL FAC	33-061-04247-00-00	Not Applicable	Not Applicable Not Applicable
235096	LIBERTY RESOURCES MA	STANLEY CENTRAL FAC	33-061-04248-00-00	Not Applicable	Not Applicable Not Applicable

ıenced After September 18, 2015 - 60.5420a(b) Annual Report

ınual reports:

ALTERNATIVE ADDRESS INFORMATION (IF NO PHYSICAL ADDRE

County *	State Abbreviation *	Zip Code *	Responsible Agency Facility ID (State Facility Identifier)	Description of Site Location (§60.5420a(b)(1)(i))	Latitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))	
e.g.: Kings County	e.g.: NY	e.g.: 11221		e.g.: 7 miles NE of the intersection of Hwy 123 and Hwy 456	e.g.: 34.12345	
MOUNTRAIL	ND	Not Applicable		NESW 33 95 W 158 N		(b) (9) [redacted]
MOUNTRAIL	ND	Not Applicable		SWSE 33 95 W 158 N		
MOUNTRAIL	ND	Not Applicable		NENW 4 95 W 157 N		
MOUNTRAIL	ND	Not Applicable		NWNW 31 95 W 159 N		
MOUNTRAIL	ND	Not Applicable		NWNW 26 94 W 158 N		
MOUNTRAIL	ND	Not Applicable		NENE 25 97 W 157 N		
MOUNTRAIL	ND	Not Applicable		SESE 20 93 W 158 N		
MOUNTRAIL	ND	Not Applicable		NWNW 11 92 W 158 N		
MOUNTRAIL	ND	Not Applicable		SESE 27 92 W 159 N		
MOUNTRAIL	ND	Not Applicable		NWNW 7 93 W 159 N		
MOUNTRAIL	ND	Not Applicable		SESW 24 95 W 160 N		
MOUNTRAIL	ND	Not Applicable		SESW 24 95 W 160 N		
MOUNTRAIL	ND	Not Applicable		LOT3 1 96 W 158 N		
MOUNTRAIL	ND	Not Applicable		LOT3 1 96 W 158 N		
MOUNTRAIL	ND	Not Applicable		SESW 16 95 W 158 N		

MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	(b) (9)
MOUNTRAIL	ND	Not Applicable	SESE 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESE 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 8 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 8 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 21 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 21 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT4 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT4 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT4 7 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 23 96 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 12 95 W 155 N	
MOUNTRAIL	ND	Not Applicable	NWNE 30 94 W 161 N	
MOUNTRAIL	ND	Not Applicable	NWNE 30 94 W 161 N	
MOUNTRAIL	ND	Not Applicable	LOT3 1 98 W 156 N	
MOUNTRAIL	ND	Not Applicable	SWSW 36 97 W 157 N	
MOUNTRAIL	ND	Not Applicable	NENE 25 95 W 156 N	
MOUNTRAIL	ND	Not Applicable	LOT1 6 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 24 97 W 157 N	
MOUNTRAIL	ND	Not Applicable	NENW 24 97 W 157 N	
MOUNTRAIL	ND	Not Applicable	NENW 28 96 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 21 93 W 159 N	
MOUNTRAIL	ND	Not Applicable	NWNW 29 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 29 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENE 28 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENE 28 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 25 94 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 17 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 12 94 W 159 N	
MOUNTRAIL	ND	Not Applicable	SWSE 11 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	NENW 12 94 W 159 N	
MOUNTRAIL	ND	Not Applicable	SESE 3 93 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT 1 1 93 W 158 N	

MOUNTRAIL	ND	Not Applicable	SESE 10 93 W 158 N	(b) (9) [redacted]
MOUNTRAIL	ND	Not Applicable	SESE 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESE 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESE 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESE 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESE 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 17 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SESW 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	

MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	[redacted]
MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	SWSE 16 95 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 35 94 W 158 N	
MOUNTRAIL	ND	Not Applicable	NWNW 35 94 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT1 30 91 W 158 N	
MOUNTRAIL	ND	Not Applicable	LOT1 30 91 W 158 N	

(b) (9)

SS AVAILABLE FOR SITE *)	REPORTING INFORMATION		PE Certification	ADDITIONAL INFORMATION	
Longitude of the Site (decimal degrees to 5 decimals using the North American Datum of 1983) (§60.5420a(b)(1)(i))	Beginning Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Ending Date of Reporting Period.* (§60.5420a(b)(1)(iii))	Please provide the file name that contains the certification signed by a qualified professional engineer for each closed vent system routing to a control device or process. * (§60.5420a(b)(12)) Please provide only one file per record.	Please enter any additional information.	Enter associated file name reference.
e.g.: -101.12345	e.g.: 01/01/2016	e.g.: 06/30/2016	e.g.: Certification.pdf **or** XYZCompressorStation.pdf		e.g.: addlinfo.zip **or** XYZCompressorStation .pdf
(b) (9) [redacted]	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			
	8/2/2018	8/1/2019			

(b) (9) [redacted]

8/2/2018	8/1/2019
8/2/2018	8/1/2019
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8/2/2018	8/1/2019
8/2/2018	8/1/2019

(b) (9) [redacted]	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
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	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019

(b) (9) [redacted]	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019
	8/2/2018	8/1/2019

40 CFR Part 60 - Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification or Reconstruction Comn
For the collection of fugitive emissions components at each well site and the collection of fugitive emissions components at each compressor st

The asterisk (*) next to each field indicates that the corresponding field is required.

Facility Record No. * **(Select from dropdown list** - *may need to scroll up* **)**	Identification of Each Affected Facility * (§60.5420a(b)(1))	Date of Survey * (§60.5420a(b)(7)(i))	Survey Begin Time * (§60.5420a(b)(7)(ii))	Survey End Time * (§60.5420a(b)(7)(ii))	Name of Surveyor * (§60.5420a(b)(7)(iii))
	e.g.: Well Site ABC	e.g.: 8/13/17	e.g.: 10:00 am	e.g.: 1:00 pm	e.g.: John Smith
32391	Anderson 156-97-4-9-	9/21/2018	10.50am	11.20am	(b) (6) [redacted]
10328	Hemsing 1	9/21/2018	2.40pm	3.00pm	
11164	Hemsing 2-33	9/21/2018	3.05pm	3.45pm	
33408	Olson C 158-96-21-16-	9/21/2018	1.30pm	2.10pm	
27334	Ron Burgundy 3-23-1⁴	9/21/2018	1.00pm	12.30pm	
32389	TANK 156-98-1-12-2N	9/21/2018	9.00am	10.30am	
32389	TANK 156-98-1-12-2N	9/21/2018	9.00am	10.30am	
32389	TANK 156-98-1-12-2N	9/21/2018	9.00am	10.30am	
33292	Waldon W 157-97-24-	9/21/2018	11.30am	12.15pm	
33293	Waldon W 157-97-24-	9/21/2018	11.45am	12.30pm	
21021	Frank 24-24H-1324-1E	9/24/2018	2.30pm	3.15pm	
32073	Holte 161-94-19-18-5'	9/24/2018	1.15pm	2.05pm	
32072	Holte 161-94-30-31-5I	9/24/2018	1.00pm	2.05pm	
33473	Jensen W 159-93-21-9	9/24/2018	3.42pm	4.15pm	
24599	LARENA 21-8H-0817-1	9/24/2018	11.55am	12.40pm	
24599	LARENA 21-8H-0817-1	9/24/2018	11.55am	12.40pm	
24600	Leon 21-8H-0817-158'	9/24/2018	12.01pm	12.40pm	
33233	MCGINNITY E 159-95-	9/24/2018	9.00am	9.45am	
21718	Overdorf 21-1H-0112-	9/24/2018	10.10am	11.45am	

21718	Overdorf 21-1H-0112-	9/24/2018	10.10am	11.45am	(b) (6)
21717	Temple 21-1H-2536-1	9/24/2018	10.10am	11.45am	
17169	Clark 16-27H	9/25/2018	9.30am	10.20am	
216999	EN NELSON 76-92 FAC	9/25/2018	12.00pm	12.30pm	
216999	EN NELSON 76-92 FAC	9/25/2018	12.00pm	12.30pm	
34769	Martin C 158-93-11-2-	9/25/2018	11.15am	11.45am	
17109	Rystedt 4-11H	9/25/2018	10.00am	10.20am	
17109	Rystedt 4-11H	10/26/2018	2.30pm	2.35pm	
33712	Storsul C 158-93-8-5-3	9/25/2018	1.26pm	2.00pm	
33712	Storsul C 158-93-8-5-3	10/16/2018	2.06pm	2.35pm	
33552	Albertson 158-93-27-3	9/26/2018	9.10am	10.00am	
33551	Esther 158-93-28-33-4	9/26/2018	9.10am	10.00am	
33551	Esther 158-93-28-33-4	9/26/2018	9.10am	10.00am	
31925	Haustveit 155-95-12-1	9/26/2018	1.30pm	1.50pm	
33498	HALEY 158-93-29-32-1	9/26/2018	10.30am	11.15am	
16233	H. RICE 1-26H	9/26/2018	12.00pm	12.30pm	
33497	Kaitlyn 158-93-30-31-4	9/26/2018	10.30am	11.15am	
33680	Rice 158-94-25-36-1M	9/26/2018	11.30am	12.00pm	
33680	Rice 158-94-25-36-1M	10/16/2018	1.40pm	2.00pm	
33134	T. HAUSTVEIT E 156-9.	9/26/2018	1.30pm	1.50pm	
228439	LEON PAD	9/28/2018	10.15am	2.15pm	
228439	LEON PAD	9/28/2018	10.15am	2.15pm	
228439	LEON PAD	10/17/2018	9.00am	1.00pm	
229101	ND STATE PAD	9/28/2018	9.00am	10.00am	
229101	ND STATE PAD	9/28/2018	2.30pm	4.00pm	
23205	ND STATE 24-16H-091	9/28/2018	9.00am	10.00am	
23205	ND STATE 24-16H-091	9/28/2018	9.00am	10.00am	
26624	Alvin 14-7H-1819-158	10/4/2018	10.35am	12.45pm	
26826	EDNA 14-7H-1819-158	10/4/2018	10.35am	12.45pm	
24577	Elroy 44-7H-0607-158	10/4/2018	1.15pm	2.00pm	
24577	Elroy 44-7H-0607-158	10/17/2018	1.30pm	2.10pm	
26623	Erling 14-7H-0607-158	10/4/2018	10.35am	12.45pm	
26192	HOVE 11-21H-2128-15	10/4/2018	9.00am	10.00am	
26192	HOVE 11-21H-2128-15	10/4/2018	9.00am	10.00am	

24576	MAYBERY 44-7H-0607	10/4/2018	1.30pm	2.10pm	(b) (6)
26825	YOGI 14-7H-0607-158	10/4/2018	10.35am	12.45pm	
234930	DOUBLE R CENTRAL F/	10/26/2018	3.45pm	4.00pm	
234930	DOUBLE R CENTRAL F/	10/26/2018	3.45pm	4.00pm	
17265	Douts 4-7H	10/26/2018	1.30pm	2.00pm	
16332	Evertson AOG Champi	10/26/2018	4.30pm	5.00pm	
16332	Evertson AOG Champi	2/15/2019	12.45pm	1.15pm	
32391	Anderson 156-97-4-9-	2/15/2019	10.15am	11.15am	
32389	TANK 156-98-1-12-2M	2/15/2019	9.00am	10.00am	
33292	Waldon W 157-97-24-	2/15/2019	11.20am	12.30pm	
10328	Hemsing 1	2/18/2019	11.25am	11.45am	
11164	Hemsing 2-33	2/18/2019	10.45am	11.15am	
27334	Ron Burgundy 3-23-14	2/18/2019	9.15am	10.15am	
26624	Alvin 14-7H-1819-158	2/19/2019	1.45pm	2.45pm	
26826	EDNA 14-7H-1819-158	2/19/2019	1.45pm	2.45pm	
24577	Elroy 44-7H-0607-158	2/19/2019	12.20pm	1.30pm	
26623	Erling 14-7H-0607-158	2/19/2019	2.45pm	3.45pm	
24600	Leon 21-8H-0817-158	2/19/2019	11.15am	12.00pm	
24576	MAYBERY 44-7H-0607	2/19/2019	12.20pm	1.30pm	
33233	MCGINNITY E 159-95-	2/19/2019	8.45am	9.30am	
21718	Overdorf 21-1H-0112-	2/19/2019	9.40am	11.00am	
21717	Temple 21-1H-2536-1	2/19/2019	9.40am	11.00am	
26825	YOGI 14-7H-0607-158	2/19/2019	2.45pm	3.45pm	
21021	Frank 24-24H-1324-16	2/20/2019	1.15pm	3.30pm	
26192	HOVE 11-21H-2128-15	2/20/2019	10.00am	10.50am	
21022	Louie 24-24H-2536-16	2/20/2019	1.15pm	3.30pm	
23206	McGregor 24-16H-212	2/20/2019	11.05am	12.30pm	
26193	Morris 11-21H-0916-1	2/20/2019	10.00am	10.50am	
23205	ND State 24-16H-0916	2/20/2019	11.05am	12.30pm	
23205	ND State 24-16H-0916	2/20/2019	11.05am	12.30pm	
23205	ND State 24-16H-0916	2/20/2019	11.05am	12.30pm	
33408	Olson C 158-96-21-16-	2/20/2019	8.30am	9.30am	
33552	Albertson 158-93-27-3	2/21/2019	11.45am	1.00pm	
216999	EN NELSON 76-92 FAC	2/21/2019	10.40am	11.30am	

33551	Esther 158-93-28-33-4	2/21/2019	11.45am	1.00pm
33498	HALEY 158-93-29-32-1	2/21/2019	9.15am	10.30am
33497	Kaitlyn 158-93-30-31-	2/21/2019	9.15am	10.30am
33473	Jensen W 159-93-21-9	2/21/2019	3.15am	4.00pm
34769	Martin C 158-93-11-2-	2/21/2019	1.00pm	2.15pm
33712	Storsul C 158-93-8-5-3	2/21/2019	2.30pm	3.15pm
17169	Clark 16-27H	2/22/2019	9.15am	10.00am
31925	Haustveit 155-95-12-1	2/22/2019	2.30pm	3.40pm
35371	Patricia W 159-94-12-	2/22/2019	11.30am	12.45pm
33944	Robert W 159-94-1-25	2/22/2019	11.30am	12.45pm
17109	Rystedt 4-11H	2/22/2019	10.15am	11.00am
33134	T. HAUSTVEIT E 156-9.	2/22/2019	1.30pm	2.20pm
234930	DOUBLE R CENTRAL F/	2/27/2019	2.10pm	3.40pm
234930	DOUBLE R CENTRAL F/	2/27/2019	2.10pm	3.40pm
234930	DOUBLE R CENTRAL F/	2/27/2019	2.10pm	3.40pm
216999	EN NELSON 76-92 FAC	2/27/2019	12.20pm	1.00pm
234930	DOUBLE R CENTRAL F/	2/28/2019	12.30pm	1.15pm
234930	DOUBLE R CENTRAL F/	2/28/2019	12.30pm	1.15pm
33680	Rice 158-94-25-36-1M	2/28/2019	2.00pm	3.30pm
235096	STANLEY CENTRAL FA(	2/28/2019	8.45am	12.00pm
14898	Gohrick 1	3/1/2019	9.20am	10.00am
11405	Hemsing 1-4	3/1/2019	8.20am	9.00am
16233	H. RICE 1-26H	3/1/2019	10.20am	11.45am
24599	Larena 21-8H-0817-15	3/5/2019	2.10pm	3.15pm
229101	ND STATE PAD	3/5/2019	8.30am	1.45pm
229101	ND STATE PAD	3/5/2019	8.30am	1.45pm
228439	LEON PAD	3/6/2019	8.30am	3.10pm
17265	Douts 4-7H	3/12/2019	10.50am	11.30am
216999	EN NELSON 76-92 FAC	3/12/2019	10.50am	11.30am
32073	HOLTE 161-94-19-18-5	3/12/2019	9.00am	10.30am
32072	HOLTE 161-94-30-31-5	3/12/2019	9.00am	10.30am
33292	WALDON W 157-97-2-	3/12/2019	12.15pm	1.30pm
33293	WALDON W 157-97-2-	3/12/2019	12.15pm	1.30pm

(b) (6) [redacted]

ıenced After September 18, 2015 - 60.5420a(b) Annual Report

ıation within the company-defined area, an owner or operator must include the records of each monitoring survey including tl

Ambient Temperature During Survey * (§60.5420a(b)(7)(iv))	Sky Conditions During Survey * (§60.5420a(b)(7)(iv))	Maximum Wind Speed During Survey * (§60.5420a(b)(7)(iv))	Monitoring Instrument Used * (§60.5420a(b)(7)(v))	Deviations From Monitoring Plan (If none, state none.) * (§60.5420a(b)(7)(vi))
e.g.: 90°F	e.g.: Sunny, no clouds	e.g.: 2 mph	e.g.: Company ABC optical gas imaging camera	e.g.: None
35	Cloudy/Foggy		4 FLIR GF320	None
35	Cloudy		6 FLIR GF320	None
35	Cloudy		7 FLIR GF320	None
35	Cloudy		6 FLIR GF320	None
35	Cloudy		6 FLIR GF320	None
35	Cloudy/Foggy		4 FLIR GF320	None
35	Cloudy/Foggy		4 FLIR GF320	None
35	Cloudy/Foggy		4 FLIR GF320	None
35	Cloudy/Foggy		5 FLIR GF320	None
35	Cloudy/Foggy		6 FLIR GF320	None
47	Cloudy		7 FLIR GF320	None
46	Cloudy		7 FLIR GF320	None
46	Cloudy		7 FLIR GF320	None
50	Cloudy		11 FLIR GF320	None
42	Cloudy		12 FLIR GF320	None
42	Cloudy		12 FLIR GF320	None
42	Cloudy		6 FLIR GF320	None
42	Cloudy		6 FLIR GF320	None
42	Cloudy		6 FLIR GF320	None

42	Cloudy	6 FLIR GF320	None
42	Cloudy	6 FLIR GF320	None
44	Cloudy	7 FLIR GF320	None
44	Cloudy	15 FLIR GF320	None
44	Cloudy	15 FLIR GF320	None
44	Cloudy	8 FLIR GF320	None
44	Cloudy	7 FLIR GF320	None
59	Sunny	16 FLIR GF320	None
44	Cloudy	15 FLIR GF320	None
47	Sunny	20 FLIR GF320	None
40	Cloudy	16 FLIR GF320	None
41	Cloudy	16 FLIR GF320	None
41	Cloudy	16 FLIR GF320	None
46	Cloudy	16 FLIR GF320	None
43	Cloudy	16 FLIR GF320	None
46	Cloudy	15 FLIR GF320	None
43	Cloudy	16 FLIR GF320	None
46	Cloudy	16 FLIR GF320	None
47	Sunny	18 FLIR GF320	None
46	Cloudy	16 FLIR GF320	None
26	Sunny	10 FLIR GF320	None
26	Sunny	10 FLIR GF320	None
31	Sunny	4 FLIR GF320	None
26	Sunny	9 FLIR GF320	None
26	Sunny	10 FLIR GF320	None
26	Sunny	9 FLIR GF320	None
26	Sunny	9 FLIR GF320	None
30	Sunny	5 FLIR GF320	None
30	Sunny	5 FLIR GF320	None
30	Cloudy	15 FLIR GF320	None
55	Sunny	4 FLIR GF320	None
30	Cloudy	5 FLIR GF320	None
25	Sunny	3 FLIR GF320	None
25	Sunny	3 FLIR GF320	None

55	Sunny	4	FLIR GF320	None
30	Cloudy	5	FLIR GF320	None
61	Sunny	15	FLIR GF320	None
61	Sunny	15	FLIR GF320	None
56	Sunny	16	FLIR GF320	None
61	Sunny	15	FLIR GF320	None
-14	Sunny	15	FLIR GF320	None
-12	Sunny	8	FLIR GF320	None
-14	Sunny	8	FLIR GF320	None
-14	Sunny	10	FLIR GF320	None
0	Cloudy	10	FLIR GF320	None
-5	Cloudy	7	FLIR GF320	None
-8	Cloudy	3	FLIR GF320	None
0	Sunny	14	FLIR GF320	None
0	Sunny	14	FLIR GF320	None
0	Sunny	14	FLIR GF320	None
2	Sunny	14	FLIR GF320	None
0	Sunny	14	FLIR GF320	None
0	Sunny	14	FLIR GF320	None
-4	Sunny	8	FLIR GF320	None
-2	Sunny	12	FLIR GF320	None
-2	Sunny	12	FLIR GF320	None
2	Cloudy	2	FLIR GF320	None
4	Cloudy	4	FLIR GF320	None
4	Cloudy	4	FLIR GF320	None
4	Cloudy	7	FLIR GF320	None
4	Cloudy	4	FLIR GF320	None
4	Cloudy	4	FLIR GF320	None
4	Cloudy	5	FLIR GF320	None
4	Cloudy	5	FLIR GF320	None
4	Cloudy	5	FLIR GF320	None
4	Cloudy	4	FLIR GF320	None
4	Part Cloudy	7	FLIR GF320	None
4	Part Cloudy	7	FLIR GF320	None

4	Part Cloudy	7	FLIR GF320	None
4	Part Cloudy	7	FLIR GF320	None
5	Part Cloudy	7	FLIR GF320	None
4	Part Cloudy	9	FLIR GF320	None
4	Part Cloudy	9	FLIR GF320	None
4	Part Cloudy	9	FLIR GF320	None
-8	Part Cloudy	4	FLIR GF320	None
2	Part Cloudy	8	FLIR GF320	None
-8	Part Cloudy	8	FLIR GF320	None
-8	Part Cloudy	8	FLIR GF320	None
-8	Part Cloudy	6	FLIR GF320	None
0	Part Cloudy	8	FLIR GF320	None
0	Sunny	17	FLIR GF320	None
0	Sunny	17	FLIR GF320	None
0	Sunny	17	FLIR GF320	None
-2	Part Cloudy	8	FLIR GF320	None
8	Sunny	8	FLIR GF320	None
8	Sunny	8	FLIR GF320	None
8	Sunny	8	FLIR GF320	None
6	Sunny	8	FLIR GF320	None
4	Cloudy	10	FLIR GF320	None
4	Cloudy	10	FLIR GF320	None
4	Cloudy	10	FLIR GF320	None
10	Sunny	12	FLIR GF320	None
10	Sunny	12	FLIR GF320	None
10	Sunny	12	FLIR GF320	None
0	Sunny	12	FLIR GF320	None
25	Sunny	13	FLIR GF320	None
29	Sunny	13	FLIR GF320	None
25	Sunny	13	FLIR GF320	None
25	Sunny	13	FLIR GF320	None
28	Sunny	13	FLIR GF320	None
29	Sunny	14	FLIR GF320	None

ıe information specified in paragraphs (b)(7)(i) through (xii) of this section in all annual reports:

Type of Component for which Fugitive Emissions Detected * (§60.5420a(b)(7)(vii))	Number of Each Component Type for which Fugitive Emissions Detected * (§60.5420a(b)(7)(vii))	Type of Component Not Repaired as Required in §60.5397a(h) * (§60.5420a(b)(7)(viii))	Number of Each Component Type Not Repaired as Required in § 60.5397a(h) * (§60.5420a(b)(7)(viii))
e.g.: Valve	e.g.: 3	e.g.: Valve	e.g.: 1
Thief Hatch		2	
None		0	
Thief Hatch		1	
Connector		1	
None		0	
Thief Hatch		4	
Connector		2	
Valve		1	
Thief Hatch		1	
None		0	
None		0	
Thief Hatch		1	
Thief Hatch		1	
Thief Hatch		2	
Thief Hatch		1	
PRV		1	
Thief Hatch		1	
Thief Hatch		1	
Thief Hatch		5	

Connector	1
None	0
None	0
Thief Hatch	2
Flange	1
Thief Hatch	2
PRV	1
None	0
Thief Hatch	3
Thief Hatch	2
Thief Hatch	2
Thief Hatch	2
PRV	1
Thief Hatch	1
None	0
None	0
Thief Hatch	3
Thief Hatch	2
Thief Hatch	2
Thief Hatch	1
Connector	1
Flange	8
PRV	2
None	0
Connector	1
Connector	1
Thief Hatch	1
Thief Hatch	2
Thief Hatch	2
Thief Hatch	3
None	0
Connector	1
Connector	1
Thief Hatch	1

None	0
None	0
Flange	1
Thief Hatch	1
None	0
None	0
None	0
Thief Hatch	3
Thief Hatch	2
Thief Hatch	4
Thief Hatch	2
Thief Hatch	1
Thief Hatch	2
None	0
None	0
Thief Hatch	1
None	0
Thief Hatch	5
None	0
Thief Hatch	2
None	0
Thief Hatch	5
Thief Hatch	1
None	0
None	0
Thief Hatch	4
None	0
Thief Hatch	2
Connector	1
PRV	1
Thief Hatch	3
Thief Hatch	1
Thief Hatch	3
Thief Hatch	1

None	0
Thief Hatch	2
Thief Hatch	1
Thief Hatch	2
Thief Hatch	2
Thief Hatch	2
None	0
Thief Hatch	3
None	0
None	0
Thief Hatch	1
Thief Hatch	1
Connector	1
Thief Hatch	4
None	0
None	0
Connector	1
Thief Hatch	1
Thief Hatch	3
Thief Hatch	6
Thief Hatch	2
Thief Hatch	2
Thief Hatch	2
Thief Hatch	1
Connector	1
Thief Hatch	1
Thief Hatch	1
Thief Hatch	1
Thief Hatch	2
Thief Hatch	1
Thief Hatch	1
Thief Hatch	3
Thief Hatch	3

Type of Difficult-to-Monitor Components Monitored * (§60.5420a(b)(7)(ix))	Number of Each Difficult-to-Monitor Component Type Monitored * (§60.5420a(b)(7)(ix))	Type of Unsafe-to-Monitor Component Monitored * (§60.5420a(b)(7)(ix))	Number of Each Unsafe-to-Monitor Component Type Monitored * (§60.5420a(b)(7)(ix))	Date of Successful Repair of Fugitive Emissions Component * (§60.5420a(b)(7)(x))
e.g.: Valve	e.g.: 1	e.g.:Valve	e.g.: 1	e.g.: 11/10/16
				9/21/2018
				NA
				9/21/2018
				9/21/2018
				NA
				9/21/2018
				9/21/2018
				9/21/2018
				9/21/2018
				NA
				NA
				9/24/2018
				9/24/2018
				9/24/2018
				9/24/2018
				9/24/2018
				9/24/2018
				9/24/2018
				9/24/2018

	9/24/2018
NA	
NA	
	9/25/2018
	9/25/2018
	9/25/2018
	9/25/2018
NA	
	9/25/2018
	10/16/2018
	9/26/2018
	9/26/2018
	9/26/2018
	9/26/2018
NA	
NA	
	9/26/2018
	9/26/2018
	10/16/2018
	9/26/2018
	9/28/2018
	9/28/2018
	10/17/2018
NA	
	9/28/2018
	9/28/2018
	9/28/2018
	10/4/2018
	10/4/2018
	10/4/2018
NA	
	10/4/2018
	10/4/2018
	10/4/2018

NA	
NA	
	10/26/2018
	10/26/2018
NA	
NA	
NA	
	2/15/2019
	2/15/2019
	2/15/2019
	2/18/2019
	2/18/2019
	2/18/2019
NA	
NA	
	2/19/2019
NA	
	2/19/2019
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	2/19/2019
	2/19/2019
NA	
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	2/20/2019
NA	
	2/20/2019
	2/20/2019
	2/20/2019
	2/20/2019
	2/20/2019
	2/21/2019
	2/21/2019

NA	
	2/21/2019
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NA	
	2/22/2019
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	2/22/2019
	2/27/2019
	2/27/2019
NA	
NA	
	2/28/2019
	2/28/2019
	2/28/2019
	2/28/2019
	3/1/2019
	3/1/2019
	3/1/2019
	3/5/2019
	3/5/2019
	3/5/2019
	3/6/2019
	3/12/2019
	3/12/2019
	3/12/2019
	3/12/2019
	3/12/2019
	3/12/2019

Type of Component Placed on Delay of Repair * (§60.5420a(b)(7)(xi))	Number of Each Component Type Placed on Delay of Repair * (§60.5420a(b)(7)(xi))	Explanation for Delay of Repair * (§60.5420a(b)(7)(xi))	Type of Instrument Used to Resurvey Repaired Components Not Repaired During Original Survey * (§60.5420a(b)(7)(xii))
e.g.: Valve	e.g.: 1	e.g.: Unsafe to repair until next shutdown	e.g.: Company ABC optical gas imaging camera
			NA
			NA
			NA
			NA
			NA
			NA
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OGI	Compressor Station Affected Facility Only	
Training and Experience of Surveyor * (§60.5420a(b)(7)(iii))	Was a monitoring survey waived under § 60.5397a(g)(5)? * (§60.5420a(b)(7))	If a monitoring survey was waived, the calendar months that make up the quarterly monitoring period for which the monitoring survey was waived. * (§60.5420a(b)(7))
e.g.: Trained thermographer; completed 40-hour course at XYZ Training Center. Has 10 years of experience with OGI surveys.	e.g.: Yes	e.g.: January; February; and March
Trained by an ITC Certified Infrared Thermographer		
Trained by an ITC Certified Infrared Thermographer		
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